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graphic arts monthly

THE MAGAZINE OF THE PRINTING INDUSTRY

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GAM 101

Official Industry Ranking Of The Top Printing Firms

This detachable double-gatefold form contains the 1989 official ranking of the 101 largest printing companies in North America, ranked by sales volume for their most recently completed fiscal year, along with salient information for each firm.

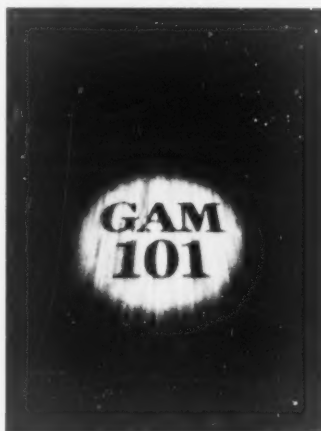
In addition, there are listings of the top greeting card manufacturers, financial printers, business forms printers, and color trade shops. These are maintained separately to avoid distortion of the main list, which concentrates on commercial printers and publication-type printers.

Data for virtually all the listings were obtained from the companies themselves. In a few cases, the sales figures had to be estimated, either because of accounting practices or because of the

nondisclosure policies of certain privately-held companies.

A word of caution: Use of the data to make direct comparisons can be very misleading, even though every effort has been made to exclude nonprinting revenues from the totals. For example, commercial printers generally include billings for paper, while publication printers customarily do not. These qualifications notwithstanding, we believe the GAM 101 is the best available overview of the industry's leaders.

Additional copies of the 1989 GAM 101 are available for \$5.00 each; send payment with order to Frank Pruzina, Reprint Services-Cahners Publishing Company, 1350 E. Touhy Ave., Des Plaines, IL 60018.



RANKING BY EMPLOYEE

1 R.R. Donnelley	24,000	36 Lehigh Press	1,000	70 Arandell-Schmidt	410
2 Deluxe Corp.	16,628	37 Stevens Graphics	1,000	71 A.D. Weiss	400
3 Lawson Mardon	7,800	38 American Signature	983	72 Henry Wurst	400
4 Dennison Mfg.	7,600	39 Monroe Printing	950	73 Noll	400
5 Arcata	7,200	40 American Bank Note	900	74 Petty Co.	400
6 World Color	6,700	41 Publisher's Printing	890	75 Riverside Press	390
7 Quebecor	6,000	42 Fleming Packaging	800	76 Danbury Printing	375
8 John H. Harland	5,600	43 Queens Group	800	77 Meehan-Tooker	375
9 Taylor Industries	5,000	44 Sheridan Press	725	78 Wisconsin Color	375
10 Sullivan Graphics	4,800	45 Combined	672	79 Latham Process	372
11 Maxwell	4,600	46 Mack	665	80 Fort Dearborn Litho	350
12 Quad Graphics	3,880	47 Alden Press	650	81 Madison Graham	350
13 Continental Graphics	3,815	48 Alford Industries	650	82 AGI	340
14 Southam Printing	3,800	49 Hart Graphics	650	83 Avanti Press	340
15 Banta	3,700	50 Ivy Hill	650	84 Williamson	340
16 Jostens	3,500	51 Cairn Capital	635	85 L.P. Thebault	330
17 Treasure Chest	3,400	52 Waverly Press	632	86 American Printers	303
18 Brown	3,300	53 Webcrafters	620	87 John D. Lucas	301
19 Meredith Burda	3,200	54 Shea Communication	600	88 Vernon Company	300
20 Graphic Industries	2,978	55 K.P. Companies	575	89 Sandy Alexander	283
21 Western Publishing	2,600	56 Danner Press Press of	570	90 Daniels	280
22 Trans-Continental	2,500	57 Keller Crescent	554	91 Northeastern	275
23 American Bank Stat.	2,350	58 U.S. Playing Card	550	92 Lasky Company	265
24 Ringier America	2,300	59 George Rice	523	93 Regensteiner	260
25 Cadmus	1,950	60 U.S. Banknote	520	94 Berlin Industries	250
26 Perry	1,700	61 Gulf Printing	512	95 Litho Prestige	250
27 Clarke Checks	1,547	62 Graftek Press	500	96 Retail Graphics	250
28 Foote & Davies	1,475	63 Spencer Press	500	97 Century Graphics	238
29 Engraph	1,425	64 Empery Corp.	487	98 Editors Press	235
30 Courier	1,400	65 Standard Publishing	448	99 Printco	235
31 Taylor Publishing	1,300	66 Moebius	450	100 E & D Web	175
32 Valassis	1,300	67 Universal Printing	450	101 Pacific Lithograph	170
33 Bertelsmann	1,211	68 Anderson Lithograph	430		
34 Judd's	1,200	69 Continental Web	420		
35 Shorewood Packaging	1,050				

BUSINESS FORMS PRINTERS

Rank	Name (Parent), Location	Sales Most Recent Fiscal Year (000)	Change (%)	Em- ployees	CEO
1	Moore Corporation ¹ , Toronto, Ontario	\$2,500,000	+ 9	26,000	M.K. Goodrich
2	Standard Register ¹ , Dayton, OH	675,000	+ 12	6,355	J.K. Darragh
3	Uarco (Settsu Corporation), Barrington, IL	524,000	0	4,500	H.L. Koelling
4	American Business Products ¹ , Atlanta, GA	358,242	+ 10	4,000	T. Carmody
5	Reynolds & Reynolds ¹ , Dayton, OH	352,102	+ 6	2,794	R.C. Nevin
6	Duplex Products ¹ , Sycamore, IL	298,489	+ 7	2,736	C.L. Peterson
7	New England Business Service ¹ , Groton, MA	217,487	+ 15	2,013	R.H. Rhoads
8	SCM Allied Paper Inc., Dayton, OH	147,000	+ 5	750	W.H. Ames
9	Ennis ¹ , Ennis, TX	128,170	+ 9	1,500	K.A. McCrady
10	R.L. Crain ¹ , Ottawa, Ontario	101,876**	+ 5	1,040	J.F. Frank
11	Office Electronics, Itasca, IL	87,100	+ 22	480	R.A. Houston
12	Shade Computer Forms, Green Bay, WI	78,000	+ 4	285	J.L. Kemerling
13	Jordan Graphics ¹ (Ruddick Corp.), Charlotte, NC	51,450	+ 6	390	J.L. Chanon

EXPLANATION OF ABBREVIATIONS

COM Commercial Printing
PUB Publications
BK Books
CAT Catalogs
SPC Specialty
INS Inserts

FOOTNOTES

¹ Publicly held
² Letterpress
³ Flexo
⁴ Screen press
⁵ Diecutting
⁶ Gold leaf press
⁷ Sheetfed intaglio
⁸ Forms press
⁹ Coaster press
¹⁰ Cameron belt press
¹¹ Coater
¹² Specialty press
* Information not available
** Estimated

THE GAM 101: OFFICIAL RANKING

Rank	Name, (Parent Company), Location	Sales Most Recent Fiscal Year (000)	Sales Previous Fiscal Year (000)	Change (%)	Employees	Sales Per Employee Sites	Press Units: Sheetfed, Web Offset, Gravure, Other	Primary Products	CEO	Years in Business
1	R.R. Donnelley & Sons ¹ , Chicago, IL	\$2,878,432	\$2,482,865	+ 16	24,000	\$119,930	31	COM	J.R. Walter	125
2	Deluxe Corporation ¹ , St. Paul, MN	1,200,000	948,000	+ 27	16,628	72,170	60	SPC	H.V. Haverty	74
3	Lawson Mardon ¹ , Mississauga, ON	928,378**	865,008	+ 7	7,800	119,020	57	COM, SPC	L.G. Tapp	107
4	Maxwell Communication, St. Paul, MN	730,000	550,000	+ 33	4,600	158,700	15	COM, PUB	R. Smith	3
5	Dennison Mfg. Co. ¹ , Framingham, MA	721,776	708,001	+ 2	7,600	94,971	9	COM	N.S. Gifford	145
6	World Color Press, Effingham, IL	670,000**	655,000	+ 2	6,700	100,000	7	PUB	J.A. Dawson	86
7	Quebecor Printing ¹ , Montreal, Quebec	627,000**	N.A.	N.A.	6,000	104,500	46	COM, PUB	J. Neveu	1
8	Sullivan Graphics, Inc., Nashville, TN	575,000	N.A.	N.A.	4,800	119,790	25	COM, BK, SPC	J.T. Sullivan	1
9	Treasure Chest Advertising, Danbury, CT	540,000	470,000	+ 15	3,400	158,820	15	INS	S.G. Scheller	22
10	Banta Corporation ¹ , Menasha, WI	526,000	302,000	+ 74	3,700	142,160	11	COM, BK, PUB	C.W. Aurand Jr.	87
11	Arcata Graphics Company, Baltimore, MD	516,000	500,000	+ 3	7,200	71,670	9	COM, BK, PUB	R.L. Swam	84
12	Western Publishing ¹ , Racine, WI	470,000	385,000	+ 22	2,600	180,770	3	BK, SPC	R.A. Bernstein	82
13	Southam Printing, Toronto, Ont.	455,346**	443,000	+ 3	3,800	119,830	18	COM	M.A. Quinn	108
14	Meredith Burda, Des Moines, IA	453,000	434,000	+ 4	3,200	141,560	7	COM	W. Voss	20
15	Valassis Inserts (Consolidated Press U.S.), Livonia, MI	400,000	400,000	0	1,300	307,690	3	INS	D.A. Brandon	20
16	Brown Printing (Gruner + Jahr), Waseca, MN	365,000	348,000	+ 5	3,300	110,610	6	PUB, CAT, INS	J.K. Riftenbergh	41
17	Taylor Industries, North Mankato, MN	360,000**	N.A.	N.A.	5,000	72,000	30	COM	G. Taylor	14
18	Quad Graphics, Pewaukee, WI	350,000	415,000	- 16	3,880	90,206	4	PUB, INS, COM	H.V. Quadracci	18
19	John H. Harland Company ¹ , Atlanta, GA	333,300	318,100	+ 5	5,600	59,520	42	SPC	J.W. Robinson	66
20	Trans-Continental Printing ¹ (Groupe Transcontinental), Saint-Laurent, Quebec	292,600	229,900	+ 27	2,500	117,040	12	INS	C. Gentile	13
21	Continental Graphics Holdings, Los Angeles, CA	291,567	261,068	+ 12	3,815	76,430	9	COM, BK, SPC	C.F. Bourland	1
22	Graphic Industries ¹ , Atlanta, GA	270,212	223,489	+ 21	2,978	90,740	40	COM	M.C. Pope III	19
23	Ringier America, Itasca, IL	237,707	218,737	+ 9	2,300	103,350	4	PUB	E.C. Nytko	4
24	Foote & Davies, Atlanta, GA	196,900	185,000	+ 6	1,475	133,490	2	COM, PUB	A.A. Herring	102
25	Perry Printing (Journal Communications), Waterloo, WI	161,800	147,400	+ 10	1,700	95,180	6	COM	R.L. Perry	58
26	Cadmus Communications ¹ , Richmond, VA	160,000	152,100	+ 5	1,950	82,050	16	COM, PUB	W. Stettinius	5
27	Lehigh Press, Pennsauken, NJ	153,600	139,160	+ 10	1,000	153,600	6	COM	J.D. DePaul	65
28	Alden Press Inc., Elk Grove Village, IL	152,000	138,000	+ 10	650	233,850	1	COM	J. Spier	43
29	Engraph ¹ , Atlanta, GA	150,600	122,800	+ 23	1,425	105,680	8	SPC	L. Benatar	56
30	Stevens Graphics (Bell South), Atlanta, GA	150,000	139,000	+ 8	1,000	150,000	5	SPC	H.M. Inman	92
31	Jostens ¹ , Minneapolis, MN	150,000	125,000	+ 20	3,500	42,860	5	BK	H.W. Lurton	52
32	American Bank Stationery, Baltimore, MD	148,621	142,876	+ 4	2,350	63,240	30	SPC	E.R. Heiser	62
33	Shorewood Packaging ¹ , Farmingdale, NY	127,136	98,973	+ 28	1,050	121,080	6	SPC	P.B. Shore	23
34	American Signature Graphics (ASG Acquisition Corp.), Memphis, TN	121,785	109,996	+ 11	983	123,890	3	PUB	T.A. Tevis	2
35	Shea Communication, Louisville, KY	120,000	100,000	+ 20	600	200,000	3	COM, PUB, CAT, INS	M. Shea	1
36	Keller Crescent, Evansville, IN	110,254	114,526	- 4	554	199,010	1	COM	T.M. Smythe	104
37	Meehan-Tooker, East Rutherford, NJ	110,000	75,000	+ 47	375	293,333	3	COM	M.D. Voss	42
38	Clarke Checks (M.B. America), San Antonio, TX	109,570	107,532	+ 2	1,547	70,830	30	SPC	J.E. Colin	115
39	Judd's, Incorporated, Washington, DC	108,000	93,000	+ 16	1,200	90,000	3	PUB	T.A. Manning	121
40	Queens Group, Long Island City, NY	102,000	81,465	+ 25	800	127,500	4	SPC	E. Kaitman	58
41	Fleming Packaging, Peoria, IL	97,590	87,000	+ 12	800	121,990	6	JPC	T.J. Fleming	55
42	George Rice & Sons, Los Angeles, CA	96,483	86,419	+ 12	523	184,480	2	COM	E. Grossberg	110
43	Bertelsmann Printing & Mfg. Corp., Berryville, VA	95,000	77,000	+ 23	1,211	78,450	5	BK	R. Hampp	3
44	Anderson Lithograph, Los Angeles, CA	90,000	68,000	+ 32	430	209,300	1	COM	G.T. Parana	35
45	Alford Industries (Kane Industries), Ridgely, Park, NJ	87,200	79,700	+ 9	650	134,150	*	SPC	R.P. Kane	27
46	Taylor Publishing (Insilco), Dallas, TX	86,850	82,600	+ 5	1,300	66,810	4	BK	F.P. Perliski	50
47	Courier Corporation ¹ , Lowell, MA	81,769	81,517	0	1,400	58,410	5	BK	J.F. Conway Jr.	165
48	American Bank Note ¹ (International Banknote), New York, NY	81,050	63,664	+ 27	900	90,056	3	SPC	E.H. Weitzen	194
49	Cairn Capital Inc., Don Mills, Ont.	78,000**	69,500	+ 12	635	122,830	7	COM	D.M. Alloway	44
50	Arandell-Schmidt, Menomonee Falls, WI	77,800	70,685	+ 10	410	189,760	1	COM	F.E. Treis	67

THE GAM 101: OFFICIAL RANKING

Rank, Name, (Parent Company), Location	Sales	Sales	Change (%)	Employees	Sales Per Employee	Sites	Press Units:	Primary Products	CEO	Years in Business
	Most Recent Fiscal Year (000)	Previous Fiscal Year (000)					Sheetfed, Web Offset, Gravure, Other			
51 Moebius Printing, Milwaukee, WI	\$75,500	\$58,000	+ 30	450	\$167,780	1	15.31.0	COM	M. McDonough	78
52 Gulf Printing (Southwestern Bell), Houston, TX	75,000	51,590	+ 46	512	146,480	4	28.42.0.3	COM	R.D. Cashman	73
53 Ivy Hill (Warner Communications), New York, NY	71,000	60,000	+ 18	650	109,230	3	99.0.0	SPC	E. Kern	75
54 Empery Corporation, Paoli, PA	70,600	61,000	+ 16	487	144,970	7	*	SPC	A.J. Clegg	10
55 Monroe Printing, East Stroudsburg, PA	70,500	69,000	+ 2	950	74,210	4	62.53.0	PUB	R.D. Hughes	19
56 Petty Co., Inc., Effingham, IL	68,000	55,000	+ 24	400	170,000	2	1.62.0	COM	G.A. Whaling	11
57 United States Playing Card Company ¹ (The Jesup Group), Cincinnati, OH	68,000	52,000	+ 30	550	123,636	1	2.2.0.4	SPC	R.C. Rule	157
58 Continental Web, Itasca, IL	65,000	60,000	+ 8	420	154,760	1	0.44.0	COM	K.W. Field	16
59 Danner Press/The Press of Ohio, Canton, OH	63,300	52,400	+ 21	570	111,050	2	11.41.0	SPC	D.H. Bracken	40
60 Webcrafters, Madison, WI	62,000	54,000	+ 15	620	100,000	2	3.54.0.2	BK	J.J. Frautschi	99
61 Publisher's Printing, Shepherdsville, KY	62,000	51,000	+ 22	890	69,660	1	12.55.0	PUB	F.E. Simon	123
62 United States Banknote, New York, NY	60,000	58,000	+ 3	520	115,380	3	45.24.0.10.7	SPC	M. Weissman	119
63 Retail Graphics Printing (RGP Corp.), Dallas, TX	60,000	50,000	+ 20	250	240,000	2	0.15.0	INS	J.G. Brown	6
64 Hart Graphics, Austin, TX	60,000 **	58,725	+ 2	650	92,310	3	18.27.0.4.18	COM	W.L. Hart	15
65 Berlin Industries (Smith Investment), Addison, IL	58,000	43,500	+ 33	250	232,000	1	0.26.0	COM	F.E. Schmitt	53
66 Mack Printing, Easton, PA	57,216	60,892	- 6	665	86,040	1	13.29.0	PUB	P.F. Mack	87
67 Vernon Company, Newton, IA	57,000	51,000	+ 12	300	190,000	3	7.0.0.5	SPC	W.F. Vernon	87
68 Combined Communications, Liste, IL	55,586	50,135	+ 11	672	82,720	2	*	PUB	R. Sanderson	43
69 K/P Companies, Berkeley, CA	55,000	43,000	+ 28	575	95,652	15	*	COM	J.W. Knapp	23
70 L.P. Thebault, Parsippany, NJ	54,000 **	47,000	+ 15	330	163,640	1	30.12.0	COM	J.B. Thebault	35
71 Lasky Company, Milburn, NJ	53,000	52,000	+ 2	265	200,000	1	24.23.0	COM	R.H. Barnhard	72
72 Spencer Press, Wells, ME	53,000	47,500	+ 12	500	106,000	1	0.26.0	COM	J.E. Spenlinhauer III	49
73 Madison/Graham Colorgraphics, Los Angeles, CA	52,000	50,000	- 4	350	148,570	2	*	COM	C.N. Madison	36
74 Danbury Printing & Litho, Danbury, CT	48,200	46,100	+ 5	375	128,530	1	17.36.0	COM	M. Previti	43
75 Henry Wurst Inc., North Kansas City, MO	47,000	42,000	+ 12	400	117,500	2	0.7.0	COM	J.C. Wurst	52
76 Fort Dearborn Lithographic, Chicago, IL	47,000	40,000	+ 18	350	134,290	3	46.0.0	SPC	T. Adler	65
77 The Sheridan Press, Hanover, PA	45,700	15,600	+ 293	725	63,030	2	16.0.0	BK	R.C. Sheridan	74
78 Waverly Press ¹ (Waverly, Inc.), Baltimore, MD	45,315	44,328	+ 2	632	71,701	2	32.12.0	PUB	W.M. Passano Jr.	99
79 Noll Printing (Our Sunday Visitor), Huntington, IN	45,137	42,473	+ 6	400	112,840	1	0.39.0	COM	D.E. Scheiber	11
80 Century Graphics, Metairie, LA	44,217	44,053	0	238	185,790	2	0.24.0	INS	C.J. Eberts	27
81 Printco, Greenville, MI	43,500	35,866	+ 21	235	185,110	2	0.44.0	INS	J.A. Pentecost	21
82 Sandy Alexander ¹ (Mickelberry Corp.), Clifton, NJ	42,856	42,778	0	283	151,430	1	21.16.0	COM	F. Stillo	25
83 Avanti Press, Miami, FL	42,500	33,500	+ 27	340	125,000	1	0.18.0	COM,CAT	J.R. Arriola	24
84 Universal Printing, St. Louis, MO	42,000	43,600	- 4	450	93,330	2	47.28.0	COM	R.A. Ebel	50
85 The Riverside Press, Dallas, TX	40,800	32,000	+ 28	390	104,620	4	38.6.0	COM,SPC	R. Lane	99
86 Graftek Press ¹ (Devon Group), Woodstock, IL	40,060	34,707	+ 15	500	80,120	3	7.59.0	PUB	S.B. Pearlman	22
87 Williamson, Dallas, TX	40,000	40,000	0	340	176,647	1	35.22.0	COM	J.B. Williamson	105
88 Regensteiner Printing, West Chicago, IL	40,000	40,000	0	260	153,850	1	0.34.0	COM,PUB	D.E. Halliday	82
89 Wisconsin Color Press (MidContinent Printing), Milwaukee, WI	39,000	40,000	- 2	375	104,000	1	0.32.0	PUB	F. Cappetta	142
90 Standard Publishing ¹ (Standex), Cincinnati, OH	37,789	36,272	+ 4	448	84,919	1	8.12.0	COM	F.D. Mosher	123
91 Daniels Printing, Everett, MA	37,133	36,600	+ 1	280	132,620	1	38.4.0.5	COM,SPC	L.S. Daniels	109
92 A.D. Weiss Litho ¹ (Eagle Picher), Hollywood, FL	36,000	32,000	+ 13	400	90,000	1	0.88.0	PUB,INS,CAT	M.H. Streibig	41
93 Latham Process Corp. ¹ , New York, NY	36,000 **	34,644	+ 4	372	96,770	2	12.32.0	COM	R. Gombach	49
94 Northeastern Graphics, North Haven, CT	35,000	20,000	+ 75	275	127,273	1	17.43.0	COM,INS	S. Bortner	1
95 Pacific Lithograph, San Francisco, CA	35,000	32,000	+ 9	170	205,880	1	9.2.0	COM	E.J. Flynn II	42
96 AGI Incorporated, Melrose Park, IL	33,000	33,000	0	340	97,060	1	*	COM,SPC	R. Block	21
97 Editors Press (Kiplinger), Hyattsville, MD	33,000	31,000	+ 6	235	140,430	1	4.25.0	PUB	K. King	37
98 Litho Prestige ¹ (Unimedia), Drummondville, Quebec	32,600	46,991	- 31	250	130,400	1	0.21.0	PUB	E. Ferrat	36
99 American Printers & Lithographers, Chicago, IL	32,500	36,400	- 11	303	107,260	1	62.0.0.6	COM,SPC	R.B. Lifton	78
100 John D. Lucas Printing, Baltimore, MD	32,100	35,095	- 9	301	106,640	1	25.22.0	COM	M.A. Krieger III	159
101 E & D Web, Cicero, IL	32,000	30,000	+ 7	175	182,860	1	0.24.0	COM,PJB	B. Love	95

GREETING CARD PRINTERS

Rank, Name, Location	Sales Most Recent Fiscal Year (000)	Change (%)	Em- ployees	CEO
1 Hallmark Cards, Kansas City, MO	\$2,300,000 **	+ 15	20,000	I.O. Hockaday
2 American Greetings ¹ , Cleveland, OH	1,275,359	+ 6	20,500	M. Weiss
3 Gibson Greetings, Cincinnati, OH	404,000	+ 12	5,500	B. Sottile

FINANCIAL PRINTERS

Rank, Name, Location	Sales Most Recent Fiscal Year (000)	Change (%)	Em- ployees	CEO
1 Bowne & Co. ¹ , New York, NY	\$187,826	- 14	1,700	R.H. Koontz
2 Chas. P. Young, New York, NY	90,000	- 10	560	J. Swain
3 Sorg ¹ , New York, NY	80,000	+ 7	450	G.B. Sorg

COLOR TRADE SHOPS

Rank, Name, Location	Sales Most Recent Fiscal Year (000)	Change (%)	Equipment Color Scanners Pagination Systems	CEO
1 Applied Graphics Technologies, New York, NY	\$100,000 **	+ 10	19	18 S. Server P. Faucetta
2 Techtron Imaging Network, Chicago, IL	92,000	+ 11	22	30 J.J. Collins
3 Parkway USA (Parkway PLC, London), New York, NY	75,000 **	0	6 **	4 P. Ross
4 Jannock Imaging, Toronto, Ontario	74,050 **	+ 30	6	10 W.H. Batten
5 American Color, Phoenix, AZ	55,000	+ 12	25	8 D. Brazell
6 Schawk, Des Plaines, IL	55,000	+ 15	17	11 C.W. Schawk
7 Enteron Group, Chicago, IL	40,000	+ 14	6	2 J.J. Reilly
8 Black Dot Graphics, Crystal Lake, IL	28,500	+ 16	6	6 E.T. Connor
9 Lincoln Graphics, Inc., Cherry Hill, NJ	19,125	+ 17	5	2 R.C. Drum
10 Kwik International, New York, NY	18,900	+ 10	2	2 R.J. Sirota
11 Phototype Color Graphics, Pennsauken, NJ	18,100	+ 38	3	3 J. Rubin
12 Magna Graphics, Inc., Lexington, KY	17,600	+ 19	3	1 K. Engle
13 Herzig Somerville, Toronto, Ontario	16,978 **	+ 8	5	7 E. Herzig
14 Blanks Engraving, Dallas, TX	16,750	+ 10	5	3 L. Blanks
15 Rex Three, Miami, FL	16,000	+ 3	5	3 S.H. Miller
16 NEC Inc., Nashville, TN	14,700	+ 15	4	4 R.W. Luckett
17 Spectrum Companies, Minneapolis, MN	14,500	+ 12	6	4 M. Murray
18 Wilson Engraving, Dallas, TX	14,500	+ 7	4	6 E.L. Green Sr.
19 Kreber Graphics, Columbus, OH	12,100	+ 9	5	5 F. Kreber

[Editor's Note: Ongoing company consolidations, the merging of international operations, and the changing nature of the graphic arts prepress business make it impossible to compile comparative information for this listing. In several cases, the revenues shown are for more than color separation services and may include typesetting, color retouching, custom photo processing, and electronic prepress services.]

Supplementing this issue's GAM 101 ranking of the largest printing companies in North America—a ranking based on annual sales revenues as reported—are these profiles of the top 25 firms and chief executive officers. Coverage here was compiled from information supplied by the firms and from other sources.

The largest printing company in North America, one of the largest firms in the world specializing in the graphic arts, and one of the most consistently successful is R.R. Donnelley & Sons Company, Chicago. Its 1988 gross sales revenues of \$2.878 billion represented a 16% increase over 1987; employee count also rose, from 22,000 to 24,000 at present.

Long a quiet giant with a guarded demeanor, Donnelley has very recently become open and aggressive as at no time in the past. There is news on many fronts:

- international expansion via the acquisition of Irish Printers, with plants in Dublin and Kildare, and the start-up of a new Ben Johnson plant at Thorp Arch in England;
- an equity position in the quick printing franchise AlphaGraphics;
- a controlling interest in privately-held Dowa Insatsu K.K., Tokyo, to produce Japanese-language versions of U.S. corporate annual reports and U.S. and U.K. catalogs;
- rapid expansion of its financial printing services operations (if counted separately, Donnelley would be among the top financial printers);
- exploitation of documentation and packaging services in the computer and software supplies industries and its expansion into a new major unit; and
- the groundbreaking this summer for a \$30 million full-service book manufacturing plant in Reynosa, Mexico, planned for start-up in July 1990. The plant, expected eventually to employ 350,

*By Roger Ynostroza
Editor*

THE GAM 101

Profiling The Top 25

will be located in the Maquiladora industrial area across the border from McAllen, Tex., joining more than 1,400 U.S. manufacturing firms there; in terms of high quality and cost efficiency of its products, the plant is designed to compete in new, more effective ways with Asian suppliers. It will specialize in manufacturing professional books for publishers of medical, technical, legal, and accounting manuals, as well as multicolor juvenile books, said to be two of the fastest-growing product areas in book publishing.

Donnelley is a diversified printing firm, dominating in such product categories as catalogs, advertising inserts, magazines,

books, directories, computer documentation, and financial printing. It now has 22 printing sites in the U.S. and nine overseas.

Since the first of the year, Donnelley has had a new president and chief executive officer in John R. Walter, who joined the company 20 years ago as a sales trainee.

Prior to his appointment, Walter had been executive vice-president of operations and previously held sales and sales management positions in the catalog and directory units. He holds a bachelor of science degree in business administration from Miami University, Oxford, Ohio.

The billion-dollar mark and the 50th consecutive year of higher sales revenue—27% over the previous year, to be exact—were the twin 1988 milestones for Deluxe Corporation, previously known as Deluxe Check Printers. This 74-year-old public company finished fiscal 1988 with sales of \$1.2 billion for #2 ranking in the 1989 GAM 101. It employs 16,628.

Headquartered in St. Paul, Minn., Deluxe has production plants, distribution centers, and divisional or subsidiary facilities in more than 80 locations in 34 states. The company's tradition-



al products and services group consists of business units that serve the U.S. payment systems market. These businesses include check and related financial forms printing, electronic funds transfer services, and new-account verification services to the financial industry.

Three weeks
before his 42nd
birthday, John R.
Walter was
appointed
president and
chief executive
officer of R.R.
Donnelley &
Sons Company,
Chicago, at
\$2.878 billion the
largest printer in
North America.

Business Systems, the firm's business-to-business marketing group, includes its business forms and computer forms divisions and its Colwell Systems subsidiary. The Consumer Specialty Products Group markets greeting cards, gift wrap, stationery, etc., via direct mail.

The president and CEO, Harold V. Haverty, 59, joined the firm in 1954. His area of expertise is operations.



The Lawson Mardon Group, ranked #3 with \$928.3 million in worldwide sales (converted from \$1.11 billion in Canadian currency), claims to be the leading packaging and printing firm in the United Kingdom and North America. Formed in 1985 in a leveraged buyout, it represents the merger of Mardon Packaging in the U.K. and Law-

son & Jones based in Canada.

Some 70% of its business is located in Europe, where a like proportion of its employees are based, working in 24 operations. Overall, three divisions comprise the group: flexible packaging, folding carton, and rigid plastics and metals. Mississauga, Ontario, is corporate and North American headquarters; Graphics-North America and Packaging-North America each consist of six division companies, while Rigid Plastics-North America has one.

The graphics division concentrates on commercial web printing, high-quality sheetfed printing, and the label business.

President and CEO is Lawrence G. Tapp, 50.

A headquarters move to St. Paul, Minn., and a new CEO in Robert Smith—capped overall by a 33% increase in sales—lead the news for Maxwell Communication. Its annual sales now stand at \$730 million, for the #4 position on the GAM 101 list.

Maxwell operations include a dozen printing sites and three prepress locations. The St. Paul plant is noteworthy because it is experiencing rapid expansion.

When James T. Sullivan left Maxwell to start his own operation in late 1988, Smith was promoted into the top slot from his post as executive vice-president-finance.

Dennison Manufacturing, Framingham, Mass., is completing a three-year period of reorganization and refocusing during which 11 diversified operations with sales of more than \$100 million were sold or closed and its business segment reporting was reclassified from four groups to three: stationery products, systems, and packaging. At the same time, capital spending was boosted, to a high of \$57 million in 1988, and the search for acqui-



sitions continues, but in the context of synergy with existing operations.

This year, Dennison expects to see positive results of renewed engineering and marketing efforts involving ion printing, a method of high-speed electronic printing its scientists patented a decade ago, as applied to ticket, tag, and label printing.

In fiscal 1988, sales increased nominally to \$721 million and the #5 position on the list.

Nelson S. Gifford, 59, was elected president in 1972, CEO in 1975, and chairman in 1986.

Projected 1989 sales of \$670 million propel privately-held World Color Press into the #6 slot. The 86-year-old firm is based in Effingham, Ill., employs 6,700, and operates seven manufacturing facilities; overall, it operates 543 web offset press units, 12 letterpress units, 100 gravure units, and four flexo units.

James A. Dawson, 52, was named president and CEO in March 1987 and chairman in November 1988. He is a graduate of Holy Cross College and holds an MBA degree from New York University Graduate School of Business.

Quebecor Printing, Montreal, was created in early 1989 in a restructuring of Quebecor, Inc., and was designed to re-group all printing activities, including the more than 20 plants acquired from BCE Publitech in October 1988. (The other main segments now are publishing and forest products.) Today, Quebecor Printing operates 46 plant sites in North America and employs 6,000. Projected annual sales, converted from Canadian currency, amount to \$627 million, for #7 on the GAM 101 list.

Subsidiaries and divisions now include such BCE acquisitions as Ronalds Printing, Mat-

thews Ingham & Lake, Alphatext, and British American Banknote, plus other 1988 acquisitions: Book Press, Holyoke Litho, Westweb Press, Imprimerie Nationale Joliette, and Imprico. Other well-known units: Graphic Web, Web Press Graphics, Semline, Eusey Press, Modern Printing & Litho, Pendell Printing, Somerset, Prestolitho, and Color Craft.

Last year, Quebecor invested about \$20 million in plant expansion and improvement.

Jean Neveu, 48, a chartered accountant, joined the firm in May 1988 and became chairman and CEO in February 1989.

New to the GAM 101 list is Sullivan Graphics, which was formed in August 1988 by James T. Sullivan, 50, formerly of R.R. Donnelley & Sons and Maxwell Communication. It has since acquired Nicholstone Bindery, Looseleaf Inc., Haddon

Craftsmen, Com-Com (composition), and GBP (Greater Buffalo Press) Industries (including American Color).

The acquisitions now amount to \$575 million in combined annual sales, making Sullivan Graphics #8 on the list. Ten printing sites, 14 prepress facilities, and one composition site comprise the firm at present, which employs 4,800. It is based in Nashville, Tenn.

Treasure Chest Advertising, Glendora, Calif., claims to be the world's largest printer of advertising circulars and takes pride in being a low-cost producer utilizing state-of-the-art equipment and its proximity to major markets via its 15 manufacturing sites. Sales of \$540 million represent a 15% increase; it is #9 on the GAM 101 list.

Sanford G. Scheller, 58, has been president and CEO since 1986; he holds a BA in business

Calvin W.

Aurand Jr. capped a lifetime career in printing when he was picked for the top spot at Banta Corporation, Menasha, Wis., a Fortune 500 company offering diverse printing and graphic/video services.



administration from Westminster College in Pennsylvania.

Says Scheller, the industry outlook for circulars calls for somewhat slower growth, in the range of 6%, in 1990 and 1991.

Revenues from the March 1988 acquisition of five plants of the Beddor Companies boosted by 74% the total 1988 sales of the Banta Corporation, Menasha, Wis., to \$526 million and 10th position. The diversified printer produces commercial work, books, publications, catalogs, direct marketing materials, and graphic services.

On July 1, Banta obtained a new CEO. He is Calvin W. Aurand Jr., who had joined the company as president March 1. He replaces Harry W. Earle, who had been president and CEO for 10 years. Aurand previously headed up American Bank Note, Chas. P. Young, and Stecher-Traug-Schmidt, and earlier served with Bemis Company.

Occupying the #11 spot with \$516 million in 1988 sales is Arcata Graphics, Baltimore, Md. The book, publication, and general commercial printer operates nine printing sites, including four in Tennessee and one each in California, Pennsylvania, West Virginia, New York, and Massachusetts. This spring, Arcata announced the start of construction on a \$66 million book plant in West Virginia.

Robert L. Swam, 48, who joined the firm in January 1985, is president and CEO.

Fiscal 1989 was a record year for Western Publishing, Racine, Wis., with sales jumping more than 20% enroute to a total of \$470 million and the #12 spot. The 81-year-old firm is America's leading publisher of children's books under its renowned Golden Book name, and is a ma-



jor producer and marketer of puzzles, games, and special-interest books for adults. Its three plants supply commercial printing and ancillary services to business and government.

Western Publishing reports tremendous growth in the proprietary adult and juvenile game market, such as Pictionary, Outburst, and Girl Talk, as well as increased business in new retail channels.

Its diversified products division has concentrated its efforts on printing one- and two-color catalogs and trade books, educational kits, manuals for software users, games, baseball and playing cards, as promotional products. It is continuing its shift away from low-margin, highly competitive print markets toward commercial printing opportunities that offer higher margins associated with value-added services.

This year, Richard A. Bernstein, 43, took over the titles of chairman, president, and CEO from Joseph A. Marino, who announced his retirement. Bernstein has a bachelor's degree in economics from New York University.

Gaining the #13 spot on the GAM 101 list with sales of \$455 million, converted from Canadian, is Southam Printing, Toronto. The 108-year-old, privately-held firm operates 18 printing sites and employs 3,800.

Michael A. Quinn, 48, continues as president and CEO.

Meredith / Burda, Des Moines, Iowa, operates seven printing sites, employs 3,200, and grossed \$453 million in the most recent fiscal year for #14 position on the list. It is a joint venture of Meredith Corporation and Burda Investments in Germany.

President Walter Voss, 61, joined Meredith in 1957.

Valassis Inserts, Livonia, Mich., posted sales of \$400 million for the second straight year, and now holds the #15 spot. Its plants in Livonia, Durham, N.C., and Wichita, Kans., produce freestanding inserts for newspapers, coupons, and commercial work.

In July 1989, David A. Brandon took over as president and CEO, responsible for strategic planning and the day-to-day management of the firm. He is a graduate of the University of Michigan and joined Valassis in 1979.

The former CEO, Larry L. Johnson, 37, has been promoted to president and CEO of Consolidated Press U.S., the Australian-based company that acquired Valassis in 1986.

Brown Printing, Waseca, Minn., reported fiscal 1989 sales of \$365 million for the #16 position. The 41-year-old company produces publications, catalogs, flyers, and inserts, operating a total of 241 heatset and nonheatset web offset press units and 30 gravure units. Its parent company is Gruner + Jahr, Hamburg, Germany.

James K. Rifenbergh, 58, continues as president and CEO.

Taylor Corporation, North Mankato, Minn., is a private, closely-held holding company for 30 diverse and autonomous operations, ranging from trade thermography and color separa-

tion work to sheetfed and web offset commercial printing and envelope converting. It employs a total of 5,000. According to one source, it had sales of approximately \$360 million, for the #17 spot on the GAM 101 list. Subsequent information revealed that sales in excess of \$250 million is a more accurate estimate.

Glenn Taylor heads up the 14-year-old firm.

Because of the sale of its Quad/Marketing newspaper-coupon operation to the Murdoch organization, Quad/Graphics reported reduced sales, \$350 million in the current year, down from \$415 million, for the #18 position.

Quad has announced it purchased a site in Hartford, Wis., where it will start construction next year of a fifth printing plant. Initial plans are to accommodate 24 web offset press lines, but there is a provision to add roto-gravure later.

Quad/Graphics now operates plants in Wisconsin—Pewaukee, Lomira, and Sussex—and in Saratoga Springs, N.Y.

Meanwhile, Quad is involved in a research project to develop three-dimensional printing using a thin lenticular-screen lamination rather than separate viewing glasses for the effect.

Harry V. Quadracci continues as president and CEO of the firm he founded in 1971.

A major check printer, John H. Harland Company, Atlanta, posted sales of \$333 million in fiscal 1988, good enough for the #19 slot. In 42 nationwide sites, it operates 155 sheetfed offset press units, 175 sheetfed letterpress units, and 48 web offset press units.

Chairman and CEO is J. William Robinson, 69, who has been with the firm for 39 years.

A revenue boost of about 27% is being reported by Trans-Continental Printing, Saint-Laurent, Quebec, a 13-year-old public company specializing in freestanding inserts. Converted from Canadian currency, its sales now stand at \$292 million for #20 on the list.

It describes itself as a low-cost producer with a dozen plants strategically located across Canada and the U.S., equipped with state-of-the-art machinery. It employs 2,500.

CEO Cam Gentile, who holds a bachelor's degree in engineering, joined the company as president in 1987. He has 22 years of senior management experience in the pulp, paper, packaging, and printing industries.

According to a Trans-Continental spokesperson, the freestanding insert industry is reaching the maturity phase, which will force the industry to rationalize and be more cost-effective in order to reduce the effect of eroding margins.

For Continental Graphics Holdings, double-digit sales growth from fiscal 1988 to fiscal 1989 marks its first full year as a private company following a buyout. Sales for the Los Angeles-based firm now stand at \$291 million, #21 on the GAM 101 list.

It employs 3,815 and operates nine plants: four in the LA area, two in San Diego, and one each in San Bernardino, Calif., Portland, Ore., and Charlotte, N.C. Its sub-

In July, David

A. Brandon became head of Valassis Inserts. Among his previous accomplishments there: "Make It Happen Day," a program setting annual personal and departmental objectives all in one day.



Bongas Kaufman/Black Star

sidiaries include such well-known names as Arts & Crafts Press, Franklin Press, Graphic Arts Center, and Rush Press.

Curtis F. Bourland, 61, continues as chairman, president, and CEO.

Graphic Industries, Atlanta, continues to expand at a rapid pace through acquisitions and new business. Fiscal 1989 saw sales swell 21% to \$270 million, #22 on the list, and member companies grow from 33 to 40, a count that includes printing companies and blueprint and reprographics firms.

Among the most recognizable firms in the network: W.E. Andrews, Hoechstetter, Mercury, Steia, Tower Printing, Williams Printing, and State Printing.

Appointed president in 1955, Mark C. Pope III, 64, now holds the titles of chairman and CEO.

Mark C. Pope
III began his
graphic arts
career in 1949
with Williams
Printing Co., the
predecessor firm
of Graphic Industries, of which he
is now chairman
and CEO.



Ringier America is the new name chosen by the Swiss company Ringier AG for the combined operations resulting from its purchase in March for \$550 million of W.A. Krueger Company, plus their joint venture, Krueger Ringier.

In fiscal 1988, Krueger Ringier alone posted sales of \$237 million for #23 spot. However, if combined with \$378 million reported by the W.A. Krueger unit, total sales would amount to \$615 million, which would push Ringier America far up on the list. Altogether, the unified company would be composed of 12 printing sites and 5,900 employees.

By the end of September, Krueger's headquarters in Scottsdale, Ariz., will be closed down and consolidated into Ringier America headquarters in Itasca, Ill.

Ringier AG, based in Zurich, is a global operation; counting all activities, sales exceed \$1 billion, with 9,000 employees worldwide.

Edward C. Nytko joined W.F. Hall Printing Co., the firm that provided the basis for Krueger Ringier, in 1965. He continues as president and CEO of Ringier America, Itasca, Ill.

Foote & Davies is, at this writing, an unfinished story. On June 19, 1989, Alden Press, Elk Grove Village, Ill., signed a letter of intent to acquire the Atlanta commercial and publication printer, which posted 1988 sales of \$196 million. The final con-

tract has not been signed yet.

Privately-held Foote & Davies, which traces its origins to 1887, operates plants in Atlanta and Lincoln, Neb.

Alvan A. Herring holds the title of CEO.

Holding down the #25 spot, with 1988 sales of \$161 million, a 10% gain over 1987, is Perry Printing, a privately-held company based in Waterloo, Wis. The firm belongs to Journal Communications.

Roger L. Perry continues as chairman and CEO.

Editor's Note: For production reasons, copy for the GAM 101 gatefold had to be compiled early. Since then, new information has emerged or become available, which was impossible to include in the main list.

Neither W.A. Krueger Company, which was bought by Ringier in March, nor its revenues appear on the list, the result of a misunderstanding. Revenues given for Ringier America include only those for Krueger Ringier, the portion of the firm that had been a joint venture between Ringier and W.A. Krueger. In fiscal 1988, W.A. Krueger had gross revenues of \$378 million. Henceforth, Ringier America should be considered a single unified company that includes the revenues, employees, and assets of W.A. Krueger and Krueger Ringier.

Also, Graphisphere, Des Plaines, Ill., a privately-held, 700-employee commercial printer encompassing Bradley Printing, The Paper Express, and Midwest Litho Arts, does not appear but should. Its fiscal 1988 sales amounted to \$110 million, up 12% from \$98 million. Gary R. Dorn is CEO.

GAM regrets these omissions and any others, and again urges all participants to be prompt and accurate in their responses. ■

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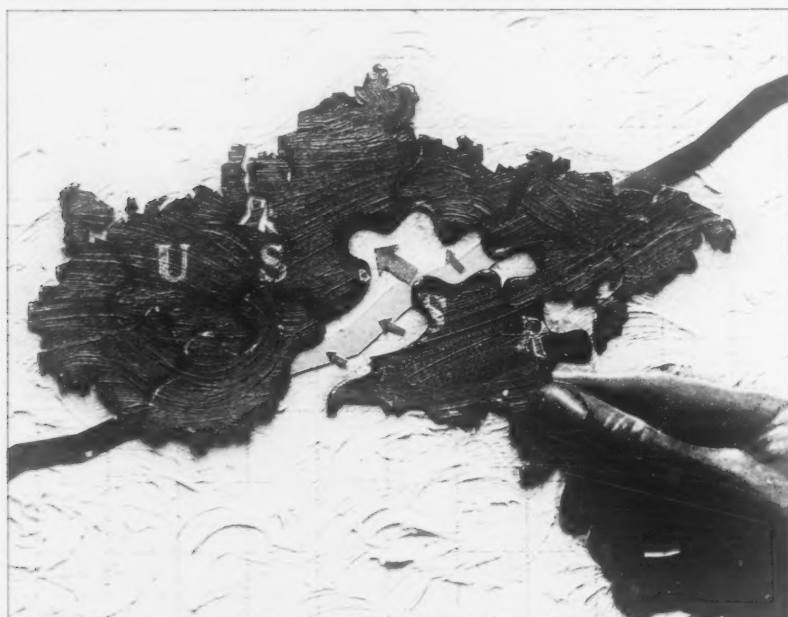
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Printing for the SUPER BOWL

graphic arts monthly

THE MAGAZINE OF THE PRINTING INDUSTRY

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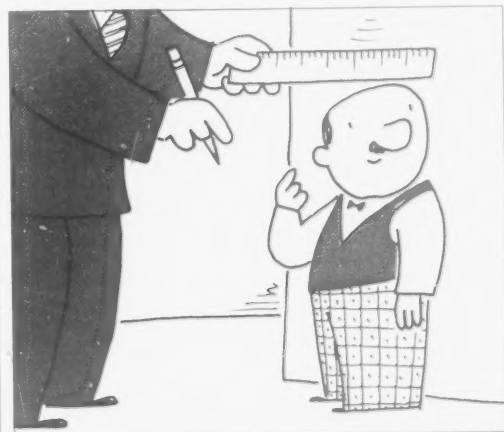
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A Look At The Consensus Forecasts

Although the economy has turned to a slower growth mode, a robust level of economic activity still remains. Real gross national product, the nation's output of goods and services, grew an annualized 2.5% or \$25.6 billion in third quarter 1989, on par with the second quarter of that year.

Our outlook calls for an extended, gradual downturn that is expected to continue through mid-1990. Cahners Economics had forecast the third quarter of 1989 to be the slowest quarter of economic growth for this business cycle. However, because of the strong third quarter, we have since revised our forecast, producing a higher growth rate in 1989 and a lower growth rate this year. Expect GNP to rise 2.9% in 1989 and 2.1% in 1990.

The Blue Chip Consensus (Sedona, Ariz.), a monthly survey of more than 50 U.S. economists, is forecasting GNP to rise a sluggish 1.8% in 1990. According to the October survey, the outlook for 1990 represents the lowest projected rate of economic growth made by the panel members since the recession forecast for early 1982.

However, most on the panel do not expect 1990 to be a year of disaster. The forecasts range from a high of 3.1% to a low of -1.3%. Cahners' GNP forecast ranked in the top third of the group. The consensus reported that industrial production, another key economic factor, will rise an average of 1.7% in 1990, the same as Cahners' forecast.

Several indicators point to a soft landing next year. For the consumer, Cahners Economics expects inflation to remain low, with the consumer price index forecast to rise only 3.8% in 1990. The unemployment rate will also stay down, averaging 5.5% next year.

Interest rates are expected to decline into 1990, with three-month Treasury bills averaging 6.3% during the year. On the business side, we project business investment to increase only 1.4%, while corporate profits will climb 4.4% in 1990.

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Hourly wages in the printing and publishing industry reached \$11.04 in September 1989, up 3.2% since the end of 1988. Wages in printing and publishing are, on average, slightly higher than wages in all other manufacturing industries. On a regional basis, all manufacturing hourly earnings (including printing and publishing) are highest in the Midwest, where the manufacturing economy is located. Wages are also higher than the national average in the Northeast because of the need to attract workers in a tight labor market.

PRINTING INDUSTRY SUPPLY INDICATORS

Employment	Sep 88	Aug 89	Sep 89	Annual Percent Change			
				1988	1989	1990	1991
Printing and publishing (1)	15667	16063	16095	36	31	21	39
Commercial printing (1)	9586	9715	9741	50	35	26	41
Productivity							
Printing and publishing (2)	1199	1209	1189	31	69	30	23
Average Hourly Earnings							
Printing and publishing (3)	107	109	110	24	32	28	29
Commercial printing (3)	110	112	114	21	34	31	29
Paper shipments							
Coated paper (4)	6500	6520	na	73	-31	34	98
Uncoated groundwood (4)	1310	1310	na	74	103	23	01
Uncoated free sheet (4)	9570	9500	na	30	-28	17	08
Graphic Arts Machinery							
New orders (5)	1337	1333	1404	48	13	180	78
Shipments (5)	1338	1306	1275	268	48	30	109
Graphic Arts Supplies							
Shipments (5)	1309	1318	1333	65	62	24	60

(1) Bureau of Economic Analysis; (2) Department of Labor; (3) Index 1987 = 100; Cahners Economics; (4) Dollars per hour; U.S. Department of Labor; (5) Thousands of units; American Paper Institute; (6) Index 1985 = 100; National Printing Equipment and Supplies Association; (7) Index 1985 = 100; Cahners Economics.

Up Close & Personal

The new decade deserves a new look. GAM's series for 1990 examines the industry.

In recent years GAM has studied the graphic arts industry from a lot of angles. We've run year-long series on aspects of business management (1988), on specific market segments (1985), on products for the industry (1987), on people in various jobs and what they do (1986), and on some of the difficult and controversial issues the industry faces (1989).

Now we begin a new decade. (Theoretically it begins in 1991, but for most of us, a decade starts when that right-hand digit clicks over to zero.) One standard journalistic response to a year that ends in zero is the retrospective, and this year news magazines and television specials will be jammed with images of incurable diseases, terrorists, Republicans, and other newsmakers of the 1980s. Those of you who haven't already had enough of them will love it.

The other standard response is the Peek Into the Future. Since the decade now on us will bring to an end not only itself but

the 20th Century and the millennium as well, we can expect 10 years of increasingly pompous guff about the Meaning Of It All.

In fact, since January is traditionally a sporting month (see page 42 for Printing for the Super Bowl), I'll make a little bet with you. Here are two words not in current vernacular use. If they haven't both become common in newspaper editorials and columns by 1999, I'll lay a hundred dollars on the first bona fide GAM subscriber who tracks me down and reminds me of it. The two words are millenarianism and eschatology. Become familiar with them. Prepare yourself for the cocktail parties of the late '90s. And remember, you heard it here first.

Meanwhile, we've all got a business to run. Instead of looking forward or looking back, we thought it would be useful to take a detailed look at where we are right now. Yes, there have been enormous changes; and yeah, all right, there are going to

be some more. But what's going on *now*?

Since we cover the North American printing industry, it seemed reasonable to take it, region by region, and look in considerable detail at the industry in 1990. We're calling this series, which will run monthly all year, the Geography of Print.

We begin with the United States as a whole. Why not all of North America? Because most of the institutions and organizations from whom we obtain data for this project have devoted a lot of time, energy, and money to measuring the U.S. industry as a more or less self-contained unit. Because it is far and away the largest single printing market in the world. And because most of our readers are interested in information specifically about it.

Following January we will look in turn at U.S. regional markets (see facing gatefold for a list), followed by Canada and Mexico.

Each installment will be in the handy eight-page, double-gatefold format you see facing this page. (Or maybe you don't see it, in which case you can contact GAM Reprint sales, 249 W. 17th St., New York, NY 10011.) By the time it's over we'll have looked at printing from Cozumel to Medicine Hat. We're looking forward to it, and we hope you'll enjoy the trip with us. ■

The Geography Of Print

The printing industry in the United States is the world's largest single print market in terms of value added, demand and consumption of products, and number of operating plants.

It is also large in comparison with other American manufacturing industries. With 1989 sales of \$73.4 billion and more than 800,000 employees, U.S. printing is:

- largest in number of manufacturing sites, 51,617 to be exact;
- second only to automobiles in number of employees; and
- growing in employment faster than computers, outpaced only by plastic products and aircraft.

In addition to size, the industry is strong, stable, and diversified. Over the past 15 years, growth in industry sales has outpaced the Gross National Product by about 30%.

As we will see during the course of this year's series on the Geography of Print, it is also very much a regional market. Printing is the most geographically dispersed manufacturing sector. There are fewer than 1,000 printing employees in only five states, while in all but a dozen, commercial printing ranks among the top 10 manufacturing industries.

This dispersal is one factor contributing to the industry's relatively low profile. There is not one but a



Jana Brenning

number of printing industries; it is at once national (long-run web processes), regional (medium-size commercial companies), and local (thousands of small shops).

One asset of printing that is under-recognized is the diverse nature of its plants and their primary products. While three-fifths of the industry falls under the heading of general commercial printing, the remainder is an array of specialized shops of all sizes that cushions ups and downs in specific areas. It is this size and market spread serving basic print buyer needs that gives printing its broad and stable base.

Also, while geographic characteristics can change somewhat because of mobility and localized labor

shortages, regionalism is still the rule. For now, however, we are considering the nation's industry as a whole: what it is, how it stands, and how it is changing.

Data for this report are taken from a wide variety of sources. The editors would particularly like to thank Printing Industries of America, the National Association of Printers and Lithographers, the U.S. Department of Commerce, A.F. Lewis and Associates, Aktrin Research Institute, the National Printing Equipment and Supply Association, and Cahners Economics.

Reprints of this installation of the Geography of Print may be ordered from Holly Hoffman, GAM, 249 W. 17th St., New York, NY 10011.

*By Peter Johnston
Special Projects Manager*

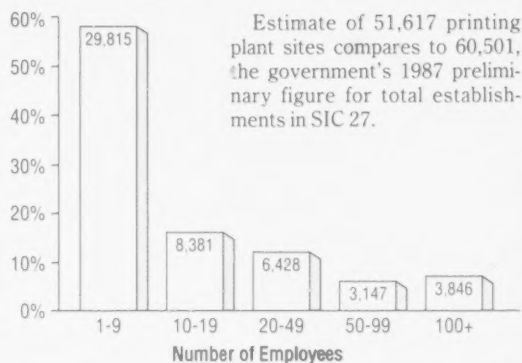
THE GEOGRAPHY OF PRINT

Industry at a Glance

Value of Shipments

In the United States, gross sales of all printing—also known as value of shipments, as compiled by the U.S. Bureau of the Census and other sources—reached \$73.39 billion in 1989 and is projected to rise to \$77.58 billion in 1990. The bureau conducts economic censuses of retail trade, wholesale trade, service, construction, mineral, and manufacturing. Printing, along with publishing, can be found under the manufacturing category. Data collected include number of establishments and companies, the value of shipments, employment, payrolls, workers' hours, inventories, cost of materials, and utilities. While the bureau's data base is far from perfect, it stands alone in its scope; most industry market research is at least partly based on these statistics.

Plants by Employee Count



Charts and graphs by Lisa Hilgers

Print Portion of SIC 27

Printing, in terms of value of shipments, comprises almost exactly half of Standard Industrial Classification 27, Printing & Publishing. Economic censuses are authorized to be conducted every five years for the years ending in 2 and 7. In actuality, however, the economic impact of printing is felt in many other areas, too, from paper and ink shipments to printing trades machinery, magnetic and optical recording media, and photographic equipment and supplies. Vast amounts of data on these areas are collected by the government.

Within SIC 27, publishing is composed of five seg-

ments: newspapers, periodicals, books, miscellaneous, and greeting cards. Printing is broken into seven segments: commercial printing, business forms, book printing, book binding, blankbooks/binders, engraving/plate-making, and trade services.

As can be seen from the wide disparity in size of the seven segments, there are certain problems with dividing the industry that way. When examining regions individually, we will include markets representative of today's industry and make at least some attempt to unbundle the huge commercial printing segment.

Dominated by Commercial Printing

As is apparent, far and away the largest segment of the U.S. printing industry is commercial printing. One reason for that—and also for the difficulties inherent in nailing down just exactly what commercial printing is—has to do with the structure of the industry itself. More than any other major manufacturing industry—more even than computers, and this in an age when every other garage seems to hold a computer factory—printing is fragmented.

The industry leader, R.R. Donnelley & Sons Co., holds less than a 4% share of the market. This is part of the industry's invisibility; there is no single firm with the public presence of, say, Boeing or Exxon or Chrysler. (Another factor, of course, is the traditional reticence of private small-company owners. Even of the 500 largest printers in the U.S., only 18% are publicly held. Some 8% are privately held, and 2%—10 companies—are owned by their employees.)

Ours is a large industry made up of very small entities; a typical printing company in the United States is a privately held commercial printer with 15 employees and annual sales of around \$900,000.

These small companies have historically been, and still largely are, what are known as job shops. What they print

is determined by the jobs they happen to have in house at any given time, and the aggregate of all those jobs constitutes "general commercial printing." Perhaps the best way to define it is negatively; if you take out magazines, catalogs, inserts, business forms, financial printing, prepress, packaging, and the other easily identified categories, what you have left is commercial printing.

And there's a lot of it. As illustrated in the accompanying graphics, commercial printing constitutes more than 68% of total industry sales, or some \$53.2 billion. Some of the more specialized kinds of printing tend to be geographically localized; financial printing is largely confined to New York City, for instance, and the big bulk of long-run magazine printers are either in the Northeast or the Midwest. Commercial printing, by contrast, especially the small-shop kind of commercial printing that makes up the bulk of the business, is pretty well distributed with the population.

The commercial sector is also one of the most vigorous areas in today's printing industry. In the 10 years between 1976 and 1986, the commercial printing segment grew from 356,035 employees to 518,563, an increase of 46%. In unadjusted dollars, payroll grew 158%, from \$4.37 billion to \$11.29 billion.

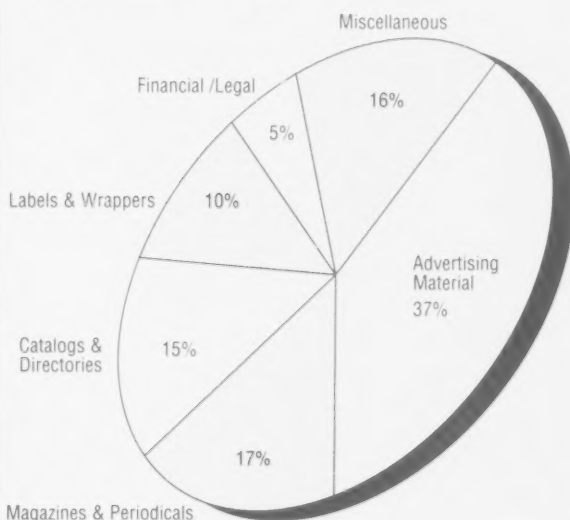
NATIONAL OVERVIEW

Printing in the U.S.

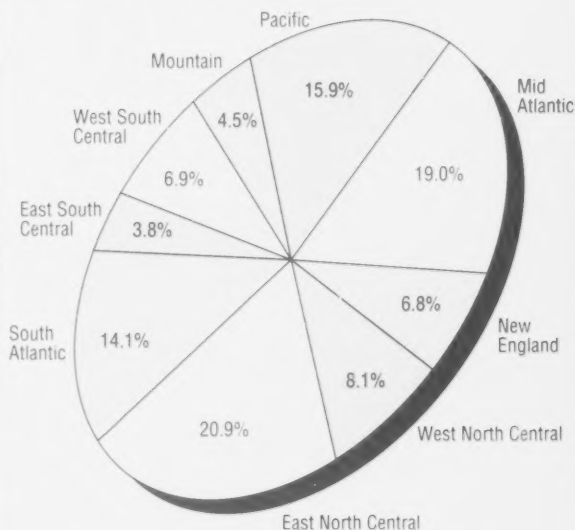
Print Market Segments

Segment	\$ Millions 1990 Sales	% Share
Commercial Printing	\$53,186	68.5
Business Forms	10,058	13.0
Book Printing	4,258	5.5
Book Binding	1,133	1.5
Blank Books/Binders	3,541	4.6
Engraving/Platemaking	3,440	4.4
Trade Services	1,964	2.5
TOTAL	\$77,580	100%

Share by Product Category



Plant Sites by Region



Key: **New England** (3,574 plant sites): Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. **Mid-Atlantic** (9,826): New Jersey, New York, Pennsylvania. **East North Central** (10,761): Illinois, Indiana, Michigan, Ohio, Wisconsin. **West North Central** (4,166): Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota. **South Atlantic** (7,266): Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington D.C., West Virginia. **East South Central** (1,973): Alabama, Kentucky, Mississippi, Tennessee. **West South Central** (3,543): Arkansas, Louisiana, Oklahoma, Texas. **Mountain** (2,316): Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming. **Pacific** (8,192): Alaska, California, Hawaii, Oregon, Washington.

Equipment Distribution by Region

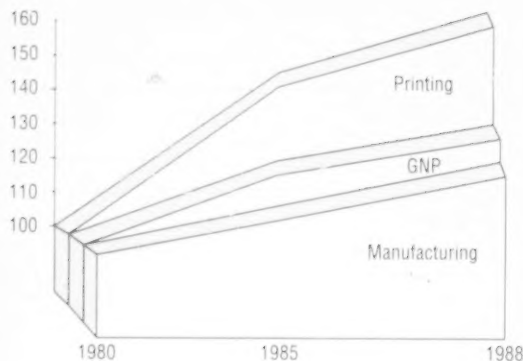
REGIONS	COLOR SCANNERS		SHEETFEED PRESSES		WEB OFFSET W/DRYERS		FOLDERS	
	Scanners in Region	Percent of total U.S.	Presses in Region	Percent of total U.S.	Presses in Region	Percent of total U.S.	Folders in Region	Percent of total U.S.
New England	208	8.0%	2,525	6.8%	262	6.9%	2,144	6.9%
Mid-Atlantic	537	20.6	6,831	18.4	801	21.0	5,448	17.6
East North Central	530	20.3	7,867	21.2	847	22.2	6,609	21.3
West North Central	207	7.9	3,088	8.3	345	9.0	2,628	8.5
South Atlantic	401	15.4	5,291	14.2	539	14.2	4,574	14.7
East South Central	110	4.2	1,503	4.0	150	4.0	1,293	4.2
West South Central	146	5.6	2,649	7.1	236	6.2	2,282	7.4
Mountain	116	4.5	1,707	4.6	134	3.5	1,478	4.8
Pacific	351	13.5	5,702	15.4	493	13.0	4,521	14.6
TOTAL U.S.	2,606	100.0	37,163	100.0	3,807	100.0	30,977	100.0

(Plant sites reporting at least one installation; multiples not indicated.)

THE GEOGRAPHY OF PRINT

A Growth Industry

Healthy Output Gains



Investment & Productivity

In recent years in the printing industry, direct wage costs as a percentage of sales have been steadily dropping. In 1975, the figure stood at 21%, while in 1988 it had experienced a 19% drop, to 17% of overall sales. In the same period, average hourly wages in the field doubled, to \$10.65; in late 1989 average hourly wages topped \$11 for the first time.

In the 10 years up to 1989, the printing industry invested a total of \$16 billion in new plant and equipment, which has had a proportionate impact on direct wage costs. In other words, increased investment in new technology has spurred employee productivity in the industry.

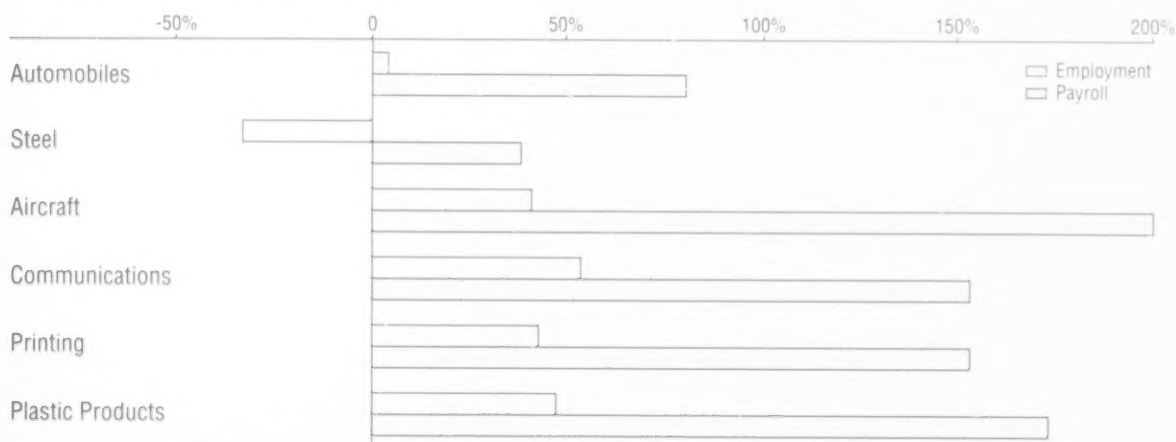
Because so much of the printing industry is tied directly to the local and regional economies, variations in direct wage costs and average hourly wages are bound to occur.

Increases in Employment

Printing is rapidly becoming one of the nation's chief providers of new jobs. Between 1982 and 1988, industry employment grew 20%, about 10 times the national average for manufacturing. Figures are in thousands.

	1976	1981	1986
Automobiles	783.9	709.2	752.4
Printing	524.4	637.4	747.0
Communications	439.4	565.8	673.0
Aircraft	417.3	583.7	587.6
Plastics Products	388.4	493.4	571.8
Steel	533.4	495.5	356.0

Strong Among the Manufacturing Industries



Payroll Keeps Pace

When it comes to the amount of money paid to employees, the printing industry holds its own against the largest industries in the manufacturing sector of the economy. Figures are in billions of unadjusted dollars.

	1976	1981	1986
Automobiles	\$13.08	\$16.98	\$23.57
Printing	6.43	11.00	16.26
Communications	6.17	12.24	19.87
Aircraft	6.70	14.97	20.30
Plastics Products	4.04	7.47	11.05
Steel	9.22	13.62	12.72

Healthy Prospects

1990 Outlook by State



Estimate of print market size, with projected growth rate.

NEW ENGLAND

Connecticut \$1,383 million (4.8%)
Maine \$189 million (6.2%)
Massachusetts \$2,695 million (5.4%)
New Hampshire \$462 million (7.2%)
Rhode Island \$361 million (5.3%)
Vermont \$338 million (5.6%)

MID-ATLANTIC

New Jersey \$3,531 million (5.9%)
New York \$6,332 million (4.8%)
Pennsylvania \$4,600 million (5.5%)

EAST NORTH CENTRAL

Illinois \$6,250 million (5.2%)
Indiana \$2,071 million (5.2%)
Michigan \$2,012 million (5.2%)
Ohio \$4,206 million (5.3%)
Wisconsin \$2,551 million (5.5%)

WEST NORTH CENTRAL

Iowa \$959 million (5.6%)
Kansas \$1,040 million (5.6%)
Minnesota \$2,422 million (5.7%)
Missouri \$1,909 million (5.0%)
Nebraska \$427 million (5.2%)
North Dakota \$72 million (5.9%)
South Dakota \$88 million (4.8%)

SOUTH ATLANTIC

Delaware \$129 million (6.6%)
Florida \$2,702 million (6.8%)
Georgia \$2,157 million (7.6%)
Maryland \$1,808 million (6.0%)

North Carolina \$1,704 million (6.9%)
South Carolina \$618 million (6.7%)
Virginia \$1,942 million (6.2%)
Washington, D.C. \$233 million (5.4%)
West Virginia \$215 million (4.4%)

EAST SOUTH CENTRAL

Alabama \$752 million (5.5%)
Kentucky \$1,163 million (5.3%)
Mississippi \$404 million (6.9%)
Tennessee \$1,907 million (5.3%)

WEST SOUTH CENTRAL

Arkansas \$461 million (4.2%)
Louisiana \$528 million (8.0%)
Oklahoma \$511 million (6.0%)
Texas \$3,998 million (5.2%)

MOUNTAIN

Arizona \$768 million (7.6%)
Colorado \$816 million (7.1%)
Idaho \$184 million (5.8%)
Montana \$77 million (5.5%)
Nevada \$261 million (7.4%)
New Mexico \$144 million (5.1%)
Utah \$432 million (5.9%)
Wyoming \$33 million (6.5%)

PACIFIC

Alaska \$33 million (6.5%)
California \$7,918 million (6.4%)
Hawaii \$116 million (5.5%)
Oregon \$740 million (5.9%)
Washington \$891 million (6.0%)

Print in Perspective

While the healthy nature of printing is clearly evident in the preceding pages, the industry's innate strengths should not be overlooked. Print serves the most basic needs of a literate, consumer-based, and information-hungry population, supplying products for business as well as leisure and education.

It has a very wide base—most number of sites in its sector of the economy, most geographically dispersed manufacturing industry—and consists almost entirely of small businesses.

Its base is also stable because its products are so diversified and because its small-plant nature is not often buffeted by mergers and takeovers nor by foreign competition.

But outside factors can present some problems. Ongoing employment needs and continuing automation mean general shortfalls in recruitment and training, plus increased competition demands professional management. Also, trouble spots can occur, as in the impact of the stock market crash on the financial printing business.

And while printing is mostly a clean industry, recycling rules and environmental-protection legislation are having their effects.

All in all, despite occasional slumps, printing in the United States is a strong and stable industry with much promise for the future. ■

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Improved Folders Offer Added Benefits In Output

Geography of Print: New England
SPC, New Language of Ink

graphic arts monthly

THE MAGAZINE OF THE PRINTING INDUSTRY

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In Printing, Machinery Trade Deficit Has Risen



The dollar appreciated about 2% in 1989, as measured by a trade-weighted index of 16 major currencies. The rise was over 7% against European currencies, but the Canadian dollar strengthened 2.8%, resulting in a smaller overall gain for the U.S. dollar. Cahners Economics forecasts a stable dollar in 1990, almost unchanged from its average 1989 level.

This stability should aid in further reducing the U.S. merchandise trade deficit. In 1989, the trade deficit was reduced by \$13.2 billion (1982 dollars). With little movement in the dollar this year, further improvement in the trade deficit will be harder to achieve.

In 1990, imports will climb 2.6% and exports will increase just over 4%. As a result, the trade deficit is expected to fall \$8.7 billion to \$53 billion (1982 dollars) in 1990.

In the printing industry, however, the stable dollar won't provide assistance to the printing machinery trade deficit. Import and export data through August 1989 show a deficit of \$259 million. Since the U.S. has just now shifted to international standards for trade data—the harmonized system—the 1989 data is not comparable to data of previous years.

But by comparing the export-to-import ratio for each time period, it is possible to get an idea of the relative size of the trade deficit. In the first eight months of 1989, the value of exports was 70% of the value of imports. This represents a decline from 1988, when this percentage was 80%. With weakening export demand (relative to imports), it is likely the trade deficit for printing machinery has risen.

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GENERAL ACTIVITY INDICATORS

General Economic Indicators	Q3/88	Q2/89	Q3/89	Annual Percent Change			
				1988	1989	1990	1991
Gross National Product (1)	4042.7	4132.5	4062.9	4.1	2.9	2.1	3.0
Consumer Spending (1)	2606.1	2653.7	2630.1	3.4	2.7	1.9	2.6
Business Investment (1)	504.0	508.4	507.9	8.4	3.8	1.7	2.6
Industrial Production (2)	138.4	141.8	142.3	5.7	3.1	1.7	4.7
Prime Rate (3)	9.7	8.4	8.7	9.3*	10.8*	9.2*	9.3*
Consumer Price Index (4)	84.1	128.7	124.7	11	4.8	3.6	3.1
	Oct 88	Sept 89	Oct 89	1988	1989	1990	1991
Industrial Production (2)							
Printing and publishing	188.1	202.7	202.8	6.8	8.4	3.3	6.6
Newspapers	188.9	152.7	140.8	1.5	1.4	4.0	6.7
Periodicals, books, cards	189.6	203.3	206.2	8.8	13.9	2.7	7.3
Job printing	28.6	237.0	237.6	9.9	8.8	2.9	6.7
Industry Shipments (5)							
Newspapers, books, periodicals	na	na	na	5.4	8.6	1.8	3.9
Other publishing and printing	na	na	na	6.1	4.8	4.2	4.7

1. Seasonally adjusted annual rate, private, (1982=100), (1982=100), (1982=100), (1982=100), (1982=100), (1982=100), (1982=100), (1982=100)

2. Index of industrial production, (1982=100), (1982=100), (1982=100), (1982=100), (1982=100), (1982=100), (1982=100), (1982=100)

3. Federal Reserve Board, (1982=100), (1982=100), (1982=100), (1982=100), (1982=100), (1982=100), (1982=100), (1982=100)

4. Bureau of Economic Analysis, (1982=100), (1982=100), (1982=100), (1982=100), (1982=100), (1982=100), (1982=100), (1982=100)

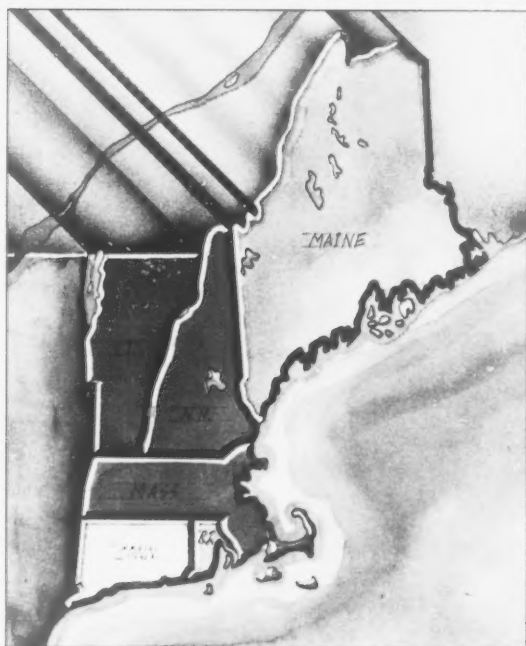
5. Bureau of Economic Analysis, (1982=100), (1982=100), (1982=100), (1982=100), (1982=100), (1982=100), (1982=100), (1982=100)

New England Region

If you're looking at a map of the United States, New England is the upper right-hand corner. It is made up of six states: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

It is, at least from the traditional Angiocentric point of view, just about the "oldest" region in the U.S. (Ponce De Leon was wandering around Florida looking for the Fountain of Youth a hundred years before the Pilgrims landed at Plymouth Rock, and, as any American Indian will be happy to explain, there were of course people already living in both places). New England is also, both in terms of land area and population, the smallest of the nine regions into which the Census Bureau divides the country. (See last month's GAM for a rundown on the various regions.)

Although it is in the Northeast, an area associated in most people's minds with big cities and congestion, New England is a surprisingly rural place. Only one of the Census Bureau's list of the 75 largest cities, Boston, is there. (By way of con-



Jana Brenning

trast, nine of them are in California alone, and seven of them are in Texas. As we will see later this year, the Old West ain't what she used to be.) The biggest towns in the other states are Providence, R.I. (158,000), Bridgeport, Conn. (142,000), Portland, Me. (62,600), Manchester, N.H. (97,000), and Burlington, Vt. (38,310).

This doesn't mean that New England is a sleepy farm belt. While there are (except Boston) no large cities in the area, one of the five most populous counties in the U.S. is Middlesex County, Mass. New

England basically consists of towns and cities, pseudo-rural middle-class and upper-class suburbs, genuinely rural countryside, and picturesque coastline.

These demographic divisions reflect economic divisions. Southern Connecticut is really part of greater New York City, and Connecticut has the highest per-capita income of the 50 states. Maine and Vermont, by contrast, really are rural—and rank 38 and 35 in per-capita income, respectively.

As we will see in the next few pages, the printing industry in New England reflects some of these characteristics. It is relatively decentralized, made up of a high proportion of small shops, and much more important in some markets than in others.

Data for this report come primarily from Printing Industries of America, the National Association of Printers and Lithographers, the U.S. Bureau of the Census, Trade and Technology Press of Stamford, Conn. (the publishers of *Printmarkets*, a highly useful source of industry data), and GRAPHIC ARTS MONTHLY's own database.

Reprints may be ordered from Holly Hoffman, GAM, 249 W. 17th St., New York, N.Y. 10011.

By Peter Johnston
Special Projects Manager

THE GEOGRAPHY OF PRINT

Regional Overview

Note that these figures, taken from the GAM database, reflect the universe of printers in its widest sense. In most of the data on the next three pages, a smaller—though nonetheless still very large—universe of printers will be used. This is because we will be con-

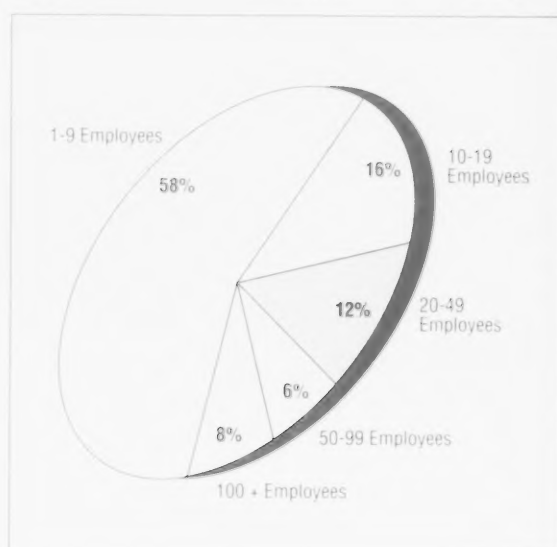
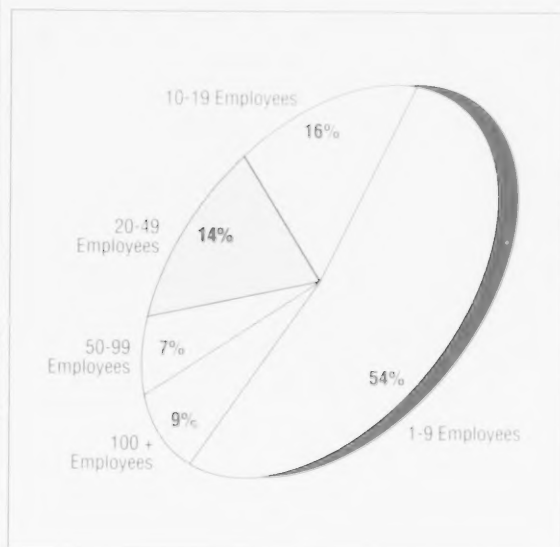
cerned with the way New England's printing industry is divided up in terms of the economic characteristics of the region's printing. This requires us to exclude newspapers, in-plant printers, and certain plants who, while clearly printers, are not *economically measurable* as printers.

New England, Plants by Employee Count

Size	# of Plants	% of Region
1-9 Employees	1,933	54%
10-19 Employees	560	16%
20-49 Employees	496	14%
50-99 Employees	266	7%
100+ Employees	319	9%
TOTAL	3,574	100%

United States, Plants by Employee Count

Size	# of Plants	% of Region
1-9 Employees	29,815	58%
10-19 Employees	8,381	16%
20-49 Employees	6,428	12%
50-99 Employees	3,147	6%
100+ Employees	3,846	8%
TOTAL	51,617	100%



Charts by Lisa Hilgers

Plants by Function

Before making that slice, though, let's look at the New England macrocosm from another couple of angles, comparing it with the U.S. as a whole. Note the relative scarcity of newspapers with commercial printing.

Function	# of Plants	% of US Total
Commercial	1,863	71%
Newspaper (w/Commercial)	91	3.7%
Newspaper (w/o Commercial)	155	6.8%
Book & Pub	181	7.1%
Business Forms	50	6.3%
Converters	131	6.9%
Noncommercial	482	6.2%
Trade	328	7.7%
Quick Printers	293	6.4%

Equipment Distribution

Equipment	Sites in Region	% of U.S. Total
Color Scanners	208	8.0%
Sheetfed Presses	2,525	6.8%
Heatset Web Offset Presses	262	2.9%
Folders	2,144	6.9%

Here we see New England's geographic and demographic peculiarities reflected in its installed equipment base. Scanners, sheetfed presses, and folders follow the general contour of the industry; New England accounts for approximately 7.2% of total U.S. printing, as measured by the Department of Commerce. Heatset web offset presses, however, show less than half that incidence. These presses are most widely used in long-run work for national distribution—work for which New England is a geographically poor candidate.

Commercial Printing

Value of Shipments

This total sales figure is based on value of shipments; New England, with \$4.86 billion, represents approximately 7.2% of the U.S. total of \$67 billion. (Like most used in these reports, these figures are for 1988.) Market figures on the next two pages are based on a total U.S. sales universe of \$69.8 million—again, a 4% difference attributable primarily to the fact that *Printmarkets*, a report that was published in December 1989, had more up-to-date information to work from.

State	Sales	%
Connecticut	1,300	27%
Maine	157	3%
Massachusetts	2,400	49%
New Hampshire	393	8%
Rhode Island	335	7%
Vermont	275	6%
TOTAL	4,860	100%

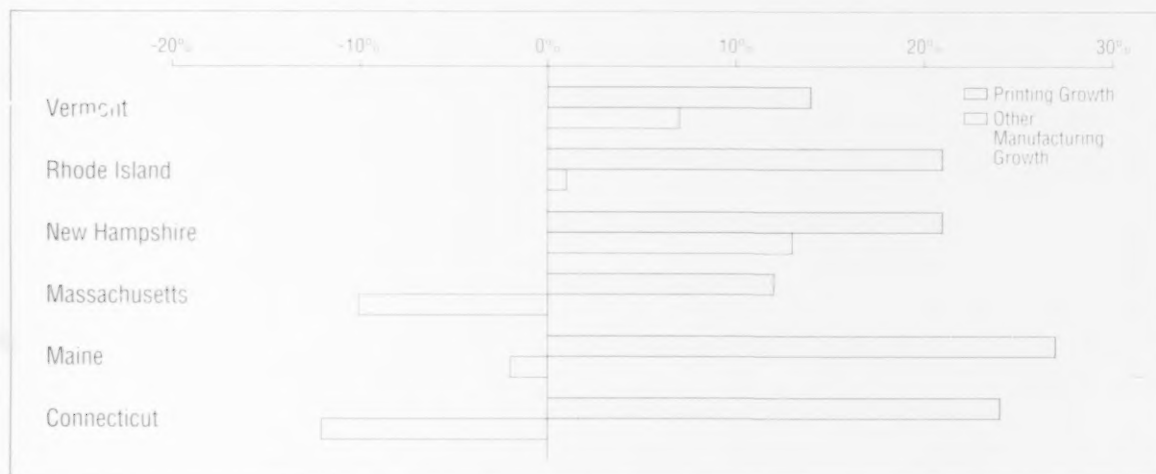


Printing Sites

State	Sites	%
Connecticut	666	29%
Maine	111	5%
Massachusetts	1,095	47%
New Hampshire	159	7%
Rhode Island	179	8%
Vermont	92	4%
TOTAL	2,302	100%

To compare this universe of printing sites with that given on the previous page, we turn back for a moment to the GAM database, which lists 3,574 sites in New England. Subtracting newspapers, in-plant printers, exclusively trade printers, and quick printers—none of which are covered in the rest of our data—yield a total of 2,225. This is within 4% of the Department of Commerce/PIA total of 2,302, which is as identical as we are likely to get.

Printing Employment Thrives in the Region



Just as in the nation overall, the printing industry in New England is creating jobs at a much higher rate than other manufacturing industries. In the three states of Connecticut, Massachusetts, and Maine, the number of jobs in other manufacturing industries is decreasing. Numbers for the region as a whole are impressive, and the growth rates for Maine and

Connecticut are really startling. Connecticut, of course, is reaping some of the benefits of the flight of manufacturing out from New York City, and continuing to grow because of the relocation there of corporate headquarters adjacent to New York. Nonetheless, and no matter how you measure it, the printing industry is thriving in New England.

State	Employees
Connecticut	15,484
Maine	1,901
Massachusetts	28,929
New Hampshire	4,299
Rhode Island	3,875
Vermont	2,971
TOTAL	57,459

Leading Printers in Major Markets

Demographics in New England

<u>State</u>	<u>Population (000)</u>	<u>Rank</u>	<u>Change (% '80-'86)</u>	<u>Migration (See text)</u>
Massachusetts	5,832	12	1.7%	- 45,000
Connecticut	3,189	28	2.6%	- 6,000
Maine	1,173	38	3.1%	44,000
New Hampshire	1,027	40	11.5%	67,000
Rhode Island	975	42	2.9%	7,000
Vermont	541	48	5.8%	8,000
TOTAL	12,737,000			

State	Age 15-24 (% Population)	Unemployment Rate (%)
Massachusetts	17.6%	3.8
Vermont	17.3%	4.7
Rhode Island	17.3%	4.0
New Hampshire	16.6%	2.8
Maine	16.0%	5.3
Connecticut	16.0%	3.8

NEW ENGLAND

Tables of leading printers given in order of overall market size. This will vary from region to region.

Company	Location	Sales	Company	Location	Sales
Eastern Color Printing	Avon, Ct	18.0	Hub Mail Advertising Services	Boston, MA	10.0
Perry Printing/Trumbull Div.	Trumbull, CT	15.0	United Litho (Hub Mail Adv.)	Somerville, MA	10.0
Spencer Press, Inc.	Wells, ME	13.0	Concord Litho	Concord, NH	8.0
Northeast Graphics, Inc.	North Haven, CT	10.0	B&W Press Inc.	Danvers, MA	5.0
Reminder Press	Vernon, CT	7.0	Hario Business Forms, Inc.	Springfield, MA	5.0
Danbury Printing & Litho	Danbury, CT	5.0	Harty Press, Inc.	New Haven, CT	4.0
ADVERTISING PRINTERS		Total 169.4	Connecticut Color USA, Inc.	West Haven, CT	4.0
Mark Burton Inc.	Boston, MA	23.0	Arrow Business Forms	Medfield, MA	2.0
Daniels Printing	Everett, MA	21.0	GREETING CARD PRINTERS		Total 87.5
W.E. Andrews (Graphic Industries)	Bedford, MA	14.0	Paramount Cards Inc.	Pawtucket, RI	39.0
Eusey Press (Quebecor)	Leominster, MA	13.0	Renaissance Greeting Cards	Sanford, ME	19.0
National Bickford Foremost	Providence, RI	12.5	Wheeler Group (Pitney Bowes)	New Hartford, CT	17.0
Winthrop Printing	Boston, MA	11.0	Concord Litho	Concord, NH	7.0
Herlin Press, Inc.	West Haven, CT	9.0	Rainboworld (Masterpiece Studios)	Boston, MA	5.5
Nimrod Press	Boston, MA	9.0	CATALOG PRINTERS		Total 77.0
Concord Litho	Concord, NH	7.0	Spencer Press, Inc.	Wells, ME	32.0
Danbury Printing & Litho	Danbury, CT	7.0	Danbury Printing & Litho	Danbury, CT	12.0
W.E. Andrews (Graphic Industries)	Hartford, CT	6.0	R.R. Donnelley/Old Saybrook	Old Saybrook, CT	10.0
United Litho (Hub Mail Adv.)	Somerville, MA	6.0	The Dingley Press	Lisbon, ME	9.5
The Graphic Center	Bloomfield, CT	5.0	Connecticut Printers Inc.	Bloomfield, CT	6.5
Regal Press, Inc.	Norwood, MA	5.0	Federated Lithographers	Providence, RI	4.0
Kurt H. Volk, Inc.	Milford, CT	5.0	Northeast Graphics, Inc.	North Haven, CT	3.0
Allied Printing Services	Manchester, CT	4.5	DIRECTORY PRINTERS		Total 45.0
Harty Press, Inc.	New Haven, CT	3.4	North American Directory Corp.	Lowell, MA	45.0
Northeast Graphics, Inc.	North Haven, CT	3.0	PREPRESS SHOPS		Total 19.2
Connecticut Color USA, Inc.	West Haven, CT	3.0	Colotone, Inc. (Colotone)	North Branford, CT	6.0
Hub Mail Advertising Services	Boston, MA	2.0	Colotone Graphics	North Branford, CT	6.0
MAGAZINE PRINTERS		Total 114.7	W.E. Andrews (Graphic Industries)	Bedford, MA	2.5
R.R. Donnelley/Old Saybrook	Old Saybrook, CT	40.0	National Bickford Foremost	Providence, RI	2.5
The Lane Press, Inc.	S. Burlington, VT	31.5	NK Graphics	Keene, NH	2.2
Connecticut Printers Inc.	Bloomfield, CT	13.0	FINANCIAL/LEGAL PRINTERS		Total 18.0
Capital City Press	Berlin, VT	11.5	Daniels Printing Co.	Everett, MA	16.0
Hughes Printing (Monroe)	Trumbull, CT	9.0	Arrow Business Forms, Inc.	Medfield, MA	2.0
Wellesley Press Inc.	Framingham, MA	6.7	DIRECT MAIL PRINTERS		Total 95.0
Danbury Printing & Litho	Danbury, CT	3.0	Northeast Graphics, Inc.	North Haven, CT	14.0
DIRECT MAIL PRINTERS		Total 95.0	Danbury Printing & Litho	Danbury, CT	12.0
Northeast Graphics, Inc.	North Haven, CT	14.0	Kurt H. Volk, Inc.	Milford, CT	11.0
Danbury Printing & Litho	Danbury, CT	12.0	Modern Printing (Quebecor)	Brookfield, CT	10.0
Kurt H. Volk, Inc.	Milford, CT	11.0			
Modern Printing (Quebecor)	Brookfield, CT	10.0			

Note: Information for this listing is derived from *Printmarkets*, a report published by Trade and Technology Press, Stamford, Conn., and is based on data provided directly by the companies involved.

graphic arts industry in New England is not enormous; however, it is, as might be expected, relatively well educated. Connecticut leads in per capita income, though much of its banking, as is shown here, is done in New York City.

Educational Attainment

State	High School (12+ years)	College (16+ years)
New Hampshire	72.3%	18.2%
Massachusetts	72.2%	20.0%
Vermont	71.0%	19.0%
Connecticut	70.3%	20.7%
Maine	68.7%	14.4%
Rhode Island	61.1%	15.4%

Income and Bank Deposits

State	Income (Per Capita)	Rank	Bank Deposit Increase 1985-1986, %
Connecticut	\$14,090	1	15.1%
Massachusetts	12,510	5	30.6%
New Hampshire	11,659	10	25.1%
Rhode Island	10,892	18	25.9%
Vermont	9,619	35	10.0%
Maine	9,042	38	11.4%

Coming Next Issue: The next installment in the Geography of Print series profiles the South Atlantic region, composed of Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington, D.C., and West Virginia.

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In-Line Finishing

Much Progress, and a Quirky Off-Line Concept Sparks Debate

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to hear

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1990: Strong Growth for Some Sectors

Despite modest overall population growth in the overall economy in 1990, a number of sectors can expect a strong performance. Since the health of individual regions of the country depends on the economic mix within that region, some regions will have a brighter outlook than others. Sectors such as construction and homebuilding, health care, exports, and industrial materials and components can expect a relatively strong 1990.

The fact will have given the Northeast economy its vitality over the past few decades is beginning to fade. Slower growth, and even isolated downturns in the Northeast's high-tech and financial services industries has begun to weaken the region's economy, leading to slower growth in per capita income and consumer spending. Still, some bright spots remain in the Northeast. In particular, a combination of moderate population growth and high employment levels has led to rising wages and the lowest unemployment rates in the country.

The strong industrial base has the Midwest poised for an upswing, although unemployment and mining difficulties will remain a drag on the regional economy. The strongest part of the Midwest will continue to be the industrial-based East North Central area, the major beneficiary of the dollar's decline and its subsequent improved U.S. international trade position.

The Southern states have passed through tough times for several years, particularly the Southwestern Oil Belt. However, favorable population and employment trends have placed them in a prime position for growth in the 1990s. The South will continue to boast double-digit population growth over the next decade, thanks to higher birth rates and migration patterns. With employment growing at twice the national rate, personal incomes have made some gains. But the Southwest still has the lowest per capita income of any region in the nation.

The West, with historically strong growth in population and employment, now benefits from expanded trade with Pacific Rim countries. The combination of these factors is helping to put the West into a position of leadership among the regions of the country.

DATATABLE DATATABLE DATATABLE DATATABLE DATATABLE DATATABLE DATATABLE

Consumer spending of material materials showed a strong performance last year, increasing 7.3% over the 1988 value. In real terms (adjusting for inflation), spending for books grew 3.1%, while television and expenditures rose 2.8%. This year, expected to show slow growth, as consumer spending patterns continued and book prices continued to rise somewhat and prices for growth in print advertising expenditures slowed slightly in 1989, they posted a 6.5% gain for the year. A 7.3% increase is expected in 1990, followed by a slow growth in the year.

END MARKET INDICATORS

	Annual Percent Change					
	1988	1989	1990	88	89	90
Consumer Spending (1)						
Publishers' Sales (2)						
Print Advertising Expenditures (3)						

THE GEOGRAPHY OF PRINT

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South Atlantic Region

The South Atlantic is probably the most varied of the regions into which the country is divided by the Census Bureau. The region runs from the north end of Delaware, which abuts Philadelphia, to Key West. It may be an anomaly, but blame it on the Census Bureau. In the course of this great southward meander, the South Atlantic takes in eight states and a territory. Reading down the map, they are the following: Delaware, Maryland, the District of Columbia, West Virginia, Virginia, North Carolina, South Carolina, Georgia and Florida.

The District of Columbia has one of the highest per-capita income averages in the country (\$13,530); West Virginia ranks 49 out of 50 states, at \$8,141. Florida is one of the most populous states, with almost 12 million people. Delaware and the District of Columbia each have a little over 625,000. (This similarity has not been overlooked by residents of the District, who wonder why they can't be a state too. The debate is emotional and complicated; suffice to say,

though, that DC is an amalgam of the very rich and very poor.)

The District of Columbia, of course, is a company town. Maryland and northern Virginia are to a considerable extent suburbs of Washington and share in its prosperity. West Virginia, by contrast, is part of the economically depressed Appalachian Mountain region, as is a fair chunk of northwestern North Carolina. The rest of North Carolina has been enjoying a boom in recent years, as have been (to a somewhat

lesser extent) South Carolina and parts of Georgia.

Then there's Florida, where half the world seems to want to live, snuggled up next to Mickey, Goofy, Sonny Crockett, and Dumbo the Flying Elephant. Florida's really booming, in the printing industry as in theme parks and orange juice. The region had 1988 printing sales of around \$9.6 billion, of which Florida alone had 23%. As you'll see in the following pages, most of these states have a reasonably busy printing sector. The exceptions are West Virginia, which is impoverished, and Delaware, which most likely has its printing done in Maryland and Pennsylvania.

Data for this report come primarily from Printing Industries of America, the National Association of Printers and Lithographers, the U.S. Bureau of the Census, Trade and Technology Press of Stamford, Conn—the latter is publisher of *Printmarkets*, a highly useful source of industry data—and Graphic Arts Monthly's own database.

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By Peter Johnston
Special Projects Manager

THE GEOGRAPHY OF PRINT

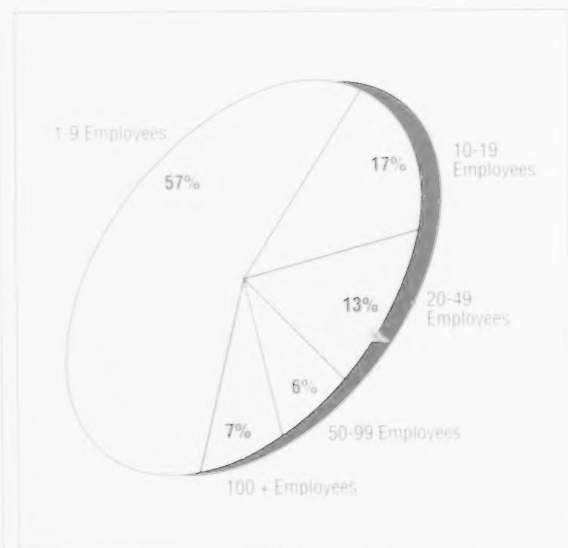
Regional Overview

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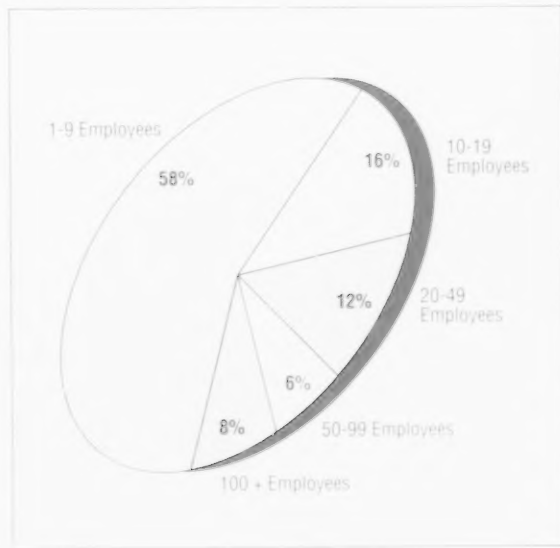
South Atlantic, Plants by Employee Count

Size	# of Plants	% of Region
1-9 Employees	4,172	57%
10-19 Employees	1,215	17%
20-49 Employees	912	13%
50-99 Employees	416	6%
100+ Employees	551	7%
TOTAL	7,266	100%



United States, Plants by Employee Count

Size	# of Plants	% of Total
1-9 Employees	29,815	58%
10-19 Employees	8,381	16%
20-49 Employees	6,428	12%
50-99 Employees	3,147	6%
100+ Employees	3,846	8%
TOTAL	51,617	100%



Charts and graphs by Lisa Hilgers

Plants by Function

Overall, the region accounts for around 14.5% of the total U.S. industry. Plants pretty well reflect that by function, though there are some variances, especially in newspapers and quick printers.

Function	# of Plants	% of US Total
Commercial	3,599	14%
Newspaper (w/ Commercial)	177	11%
Newspaper (w/o Commercial)	311	14%
Book & Pub	380	
Business Forms	100	13%
Converters	241	13%
Noncommercial	1,138	15%
Trade	524	12%
Quick Printers	796	17%

Equipment Distribution

Equipment	Sites in Region	% of U.S. Total
Color Scanners	401	15%
Sheetfed Presses	3,453	15%
Heatset Web Offset Presses	539	14%
Folders	4,574	15%

When we looked at this last month, for New England, we saw a number of variances with the region's overall size. By contrast, the South Atlantic region follows the pattern of its size almost exactly. A state-by-state analysis (for which we unfortunately have no room) would show some interesting contrasts. There would be a bulge in color scanners in Florida, where a large number of separators have set up shop over the past decade, and a similar bulge in web offset press lines in Virginia, Maryland and North Carolina.

Commercial Printing

Value of Shipments

At \$9.95 billion, the South Atlantic represents 14.5% of total U.S. printing. The Big Five in this region are clearly Florida, Georgia, Maryland, Virginia, and North Carolina. Delaware comes in dead last with just over \$100 million in printing sales—though as the nominal headquarters for many corporations, it engenders a lot of printing.

State	Sales	%
Florida	2,200	23%
Georgia	1,800	19%
Maryland	1,600	17%
Virginia	1,600	17%
North Carolina	1,400	14%
South Carolina	503	5%
District of Columbia	221	2.3%
West Virginia	165	1.7%
Delaware	105	1%
TOTAL	9,594	100%



Printing Sites

State	Sites	%
Florida	1,724	28.7%
Georgia	1,600	26.6%
North Carolina	765	12.7%
Virginia	669	11.2%
Maryland	656	10.9%
South Carolina	262	4.4%
District of Columbia	163	2.7%
West Virginia	103	1.7%
Delaware	69	1.1%
TOTAL	6,011	100%

Between the two of them, Florida and Georgia have over 55% of the sites in the entire region. This reflects the concentration of very large printers in the northern part of the region—closer to national audiences. While Georgia is only 11% larger than Maryland in terms of printing sales, it has nearly two and a half times as many sites. The average volume of these sites is smaller.

Industry Outperforms All Manufacturing Segments



The unemployment rate in West Virginia is 11.8%; in Maryland, where unemployment is a reasonable 4.5%, non-printing manufacturing jobs are declining at 10% per year. As can be seen here, the industry outperforms the overall manufacturing sector everywhere in the region, most spectacularly in Georgia (though for the most part other manufacturing is also healthy in the South Atlantic).

State	Employees	State	Employees
Florida	26,589	South Carolina	5,603
Georgia	21,300	District of Columbia	2,600
Maryland	19,097	West Virginia	1,657
Virginia	18,524	Delaware	1,319
North Carolina	16,175	TOTAL	112,864

Leading Printers in Major Markets

Tables of leading printers given in order of overall market size. This will vary from region to region.

Demographics in South Atlantic

Population and Migration

Potential Labor Pool

Educational Attainment

\$10.00

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A CAHNERS PUBLICATION

APRIL 1990

graphic arts monthly[®]

THE MAGAZINE OF THE PRINTING INDUSTRY

• Düsseldorf

Drupa 90 *Perfect Time, Perfect Place*

#1 Exposition Opens This Month

The Views from West and East

Major Printers Prepare for
A New European Market

Sampler of Products

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1991

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THE MAGAZINE OF THE PRINTING INDUSTRY

DRUPA 90



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By Roger Ynostroza

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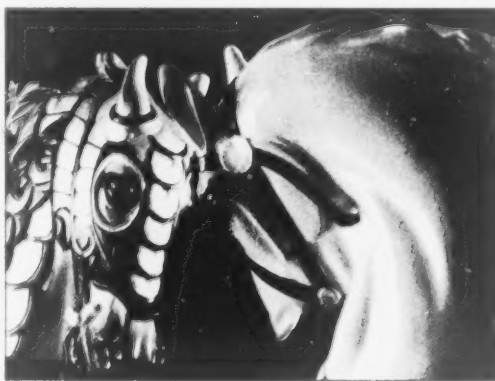
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Is the Recent Rise In Interest Rates Merely a Blip?

Financial market conditions have reversed the downward trend in interest rates. Since the achievement of a "soft landing," as opposed to a full-fledged recession, is somewhat contingent on the easing of interest rates, this trend reversal is cause for concern.

Long-term rates now stand nearly a full percentage point above the early-December level; short-term rates have risen about 20 basis points. These increases occurred despite a quarter-point decline in the Federal Funds rate and a half-point drop in the prime rate.

If the Federal Reserve Board can't be blamed, who or what is responsible? While inflation is partly to blame, much is due to a worldwide increase in interest rates. Since early December, long-term rates are up 1.5 percentage points in Japan, and about a half percentage point in both West Germany and the U.K. Like in the U.S., short-term rates and the prime interest rates are up much less in these countries.

Economic growth is more robust internationally, and, therefore, interest rates are on a normal upward trend. Excessive budget and trade deficits are forcing us into the international capital markets, however, and forcing us to pay the rising international rates.

While the upward pressure stemming from the international scene is not likely to improve substantially in the near future, interest rates should soon be relieved of inflationary pressures. Interest rates commonly fluctuate month-to-month in response to high inflation reports. Following a 6.5% annualized gain in fourth quarter 1989, wholesale prices increased at a 25% annual rate from December to January. However, since most of this price hike stemmed from the soaring food and fuel costs of an unusually cold December, these gains won't be sustained. Thus, this rise in interest rates should turn out to be a mere blip in an otherwise downward trend.

DATATABLEDATATABLEDATATABLEDATATABLEDATATABLEDATATABLEDA

Year-end 1989 data shows very interesting trends in the paper industry. Shipments of coated paper fell 2.6%, to total 7.2 thousand short tons. This represents the first annual decline since 1985. Likewise, the uncoated freesheet market saw its first decline since 1982, dropping 2.6% to 11.0 thousand short tons. In contrast, shipments of uncoated groundwood soared 10.1% to over 1.7 thousand short tons last year—the strongest gain since 1981. Overall, paper shipments (with the exception of coated paper) of all kinds are expected to have a flat year in 1990.

PRINTING INDUSTRY SUPPLY INDICATORS

	Annual Percent Change						
	Dec 88	Nov 89	Dec 89	1988	1989	1990	1991
Employment							
Printing & publishing (1)	1595.6	1623.6	1626.8	3.6	2.9	3.4	2.3
Commercial printing (1)	568.0	581.7	581.8	-5.0	3.5	3.2	3.1
Productivity							
Printing & publishing (2)	129.7	116.5	110.8	31	7.5	10	10
Average Hourly Earnings							
Printing & publishing (3)	10.70	11.05	11.07	2.4	3.3	3.1	3.6
Commercial printing (3)	10.95	11.31	11.37	2.1	3.4	3.1	4.3
Paper shipments							
Coated paper (4)	573	616	585	7.3	2.6	4.0	9.8
Uncoated groundwood (4)	125	153	123	7.4	10.1	1.0	0.1
Uncoated free sheet (4)	930	930	964	3.0	2.6	1.5	0.8
	Q3/88	Q2/89	Q3/89	1988	1989	1990	1991
Graphic Arts Machinery							
New orders (5)	118.8	110.0	121.4	-4.8	-5.3	12.8	15.6
Shipments	155.5	177.0	159.6	26.8	4.8	3.0	11.3
Graphic Arts Supplies							
Shipments (5)	139.5	153.3	143.1	6.5	5.2	1.4	5.3

(1) thousands of employees, U.S. Dept. of Labor. (2) index, 1977=100, Cahners Economics. (3) dollars per hour, U.S. Dept. of Labor. (4) thousands of short tons, American Paper Institute. (5) index, 1981=100, NIPA's. All forecasts by Cahners Economics.

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East North Central Region

Measured in printing industry terms, the East North Central region is the reigning champ. These five states—Illinois, Indiana, Ohio, Michigan, and Wisconsin—account for about 22% of the total U.S. printing market (measured by value of shipments). Most of the industry's big names are either headquartered here, have extensive manufacturing facilities here, or both.

The Midwest has a reputation for homogeneity and typicalness, and to some extent, the statistics bear this out. Illinois has the highest per-capita income (\$11,302) of these states, with a national ranking of 12th; Indiana ranks 30th, at \$9,978, a considerably narrower spread than we have seen in some other regions. Proportionate to their population, the workforce in these states is similar in the terms important to the printing industry, i.e., educational attainment, percentage of those in the entry-level age group, and unemployment rate. This area has traditionally been the hub of long-run, big-league printing, and while other



areas are gaining (especially California), the East North Central seems placed to remain dominant for years to come.

One worrisome sign in an otherwise solid picture: all of these states are losing population. The Census Bureau measures net migration, that is, population change above and beyond normal birth and death rates. By that yardstick, a total of about 1.7 million people moved out of these five states between 1980 and 1986. This migratory pattern may eventually constrain what has been a pattern of exuberant growth.

That growth is continuing in some parts of the region; PIA shows an annual printing employment growth rate of 47% for Indiana and 35% for Wisconsin. Much of that, though, is due to expansion on the part of Chicago-area printers who want to move at least some of their manufacturing out of Illinois. (Illinois has nearly 3½ times the total industry employment of Indiana.) In Michigan, hard-hit for years by the steady decline of the American automobile industry, "other manufacturing" is actually growing a little faster than printing employment, a highly atypical pattern repeated in Illinois.

Facts and figures for this report come primarily from Printing Industries of America, the National Association of Printers and Lithographers, the U.S. Bureau of the Census, Trade and Technology Press of Stamford, Conn. (the publishers of *Printmarkets*, a useful source of industry data) and Graphic Arts Monthly's own, proprietary database.

Reprints of this installation of the Geography of Print may be ordered from Holly Hoffman, GRAPHIC ARTS MONTHLY, 249 W. 17th St., New York, NY 10011.

By Peter Johnston
Special Projects Manager

THE GEOGRAPHY OF PRINT

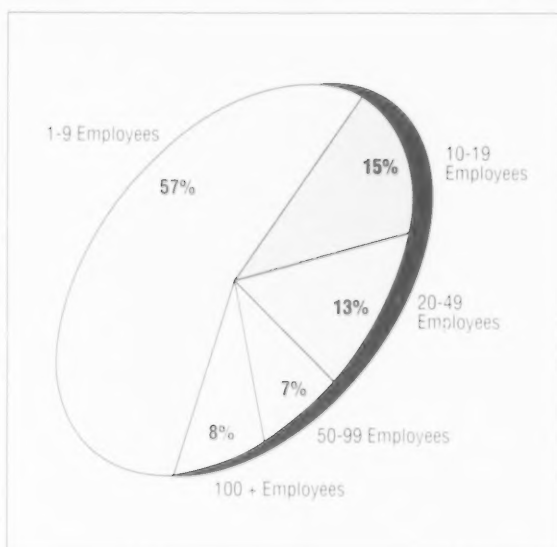
Regional Overview

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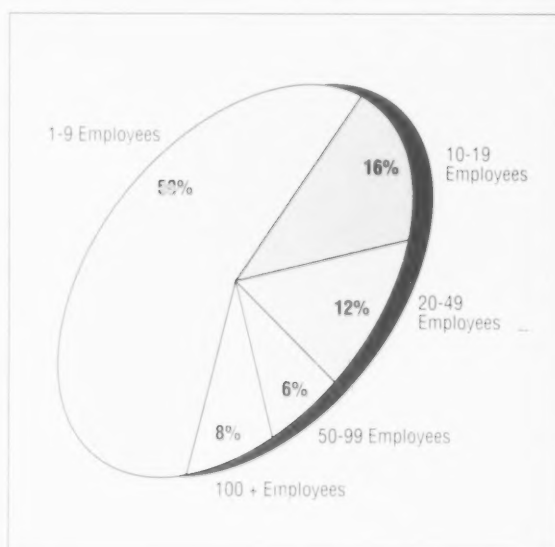
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Charts and graphs by Lisa Hilgers

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Overall, the region accounts for around 22% of the total U.S. industry. Plants pretty well reflect that by function, though there are some variances, especially in newspapers and converters.

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Converters	504	27%
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Quick Printers	927	20%

Equipment Distribution

Equipment	Sites in Region	% of U.S. Total
Color Scanners	530	20%
Sheetfed Presses	7,867	33%
Heatset Web Offset Presses	847	22%
Folders	6,609	21%

When we think of this region we think immediately of long-run heatset web offset and rotogravure lines, and in fact there are plenty of them here. Interestingly, however, a third of the sheetfed presses in the country are in this region—which, coupled with the list of major printers over to the right, would seem to confirm that the East North Central sees an awful lot of printing of every kind, not just long-run web work. There are comparatively few scanners; prepress is more local than printing.

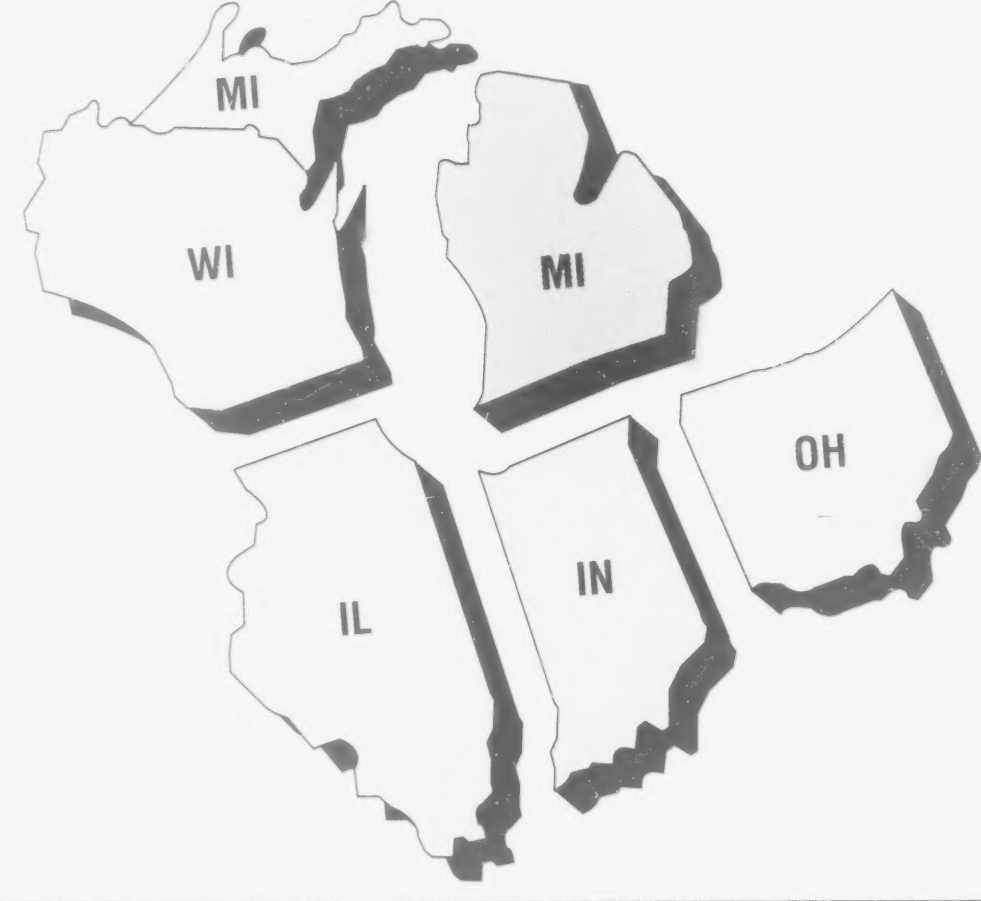
EAST NORTH CENTRAL

Commercial Printing

Value of Shipments

At \$14.8 billion, the East North Central region accounts for 22% of the entire nation's output. Of this total, Illinois accounts for 38%, followed by Ohio at 23%. (Ohio is correct; see the accompanying list of business forms printers for clarification.) The other three states are smaller—but still of the first magnitude.

State	Sales	%
Illinois	5,500	38%
Ohio	3,500	23%
Wisconsin	2,200	15%
Indiana	1,700	12%
Michigan	1,700	12%
TOTAL	14,700	100%

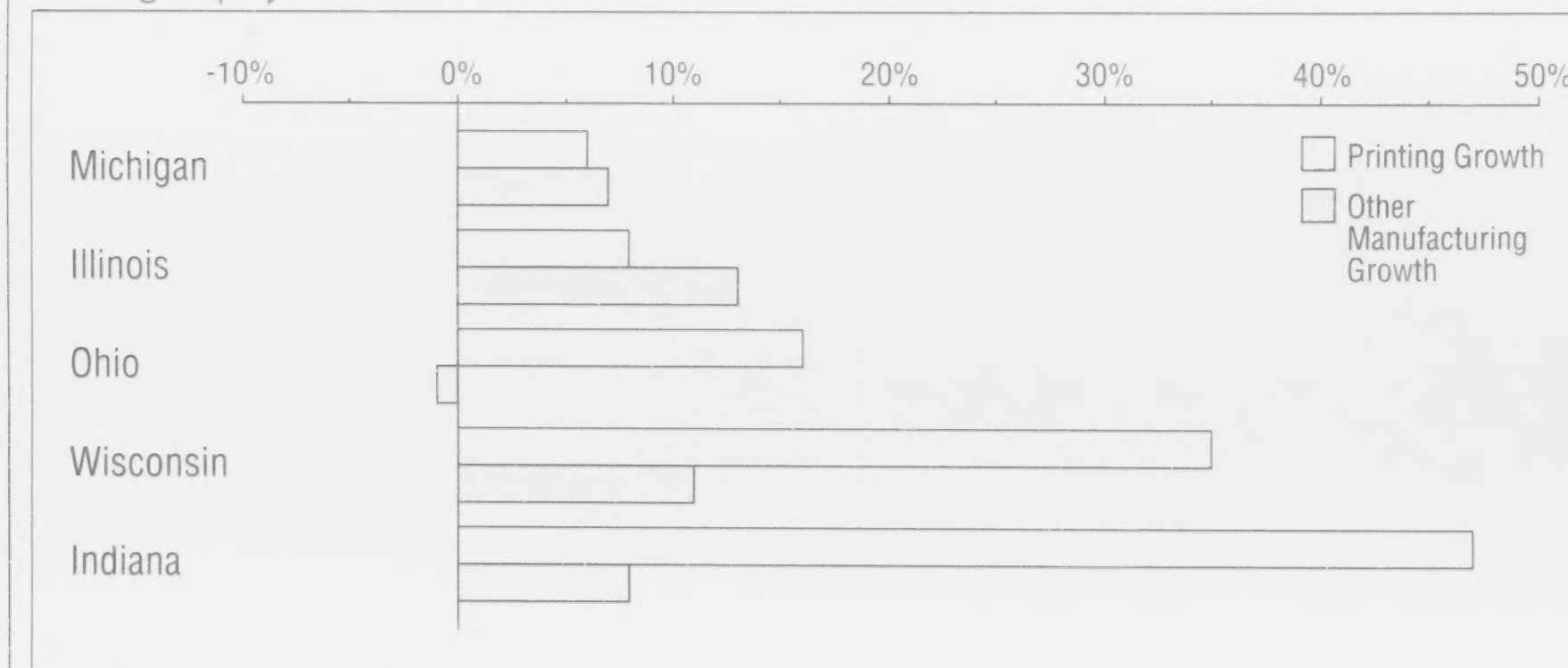


Printing Sites

The distribution of printing sites, not surprisingly, closely reflects the distribution of sales volume (value of shipments). Between them, Illinois and Ohio account for 59% of the manufacturing sites in the region. Notice that Wisconsin, which only has 12% of the sites, has 15% of the volume. This is due to the recent growth of a few very large long-run Wisconsin publication printers.

State	Sites	%
Illinois	2,396	35%
Ohio	1,632	24%
Michigan	1,249	18%
Wisconsin	784	12%
Indiana	737	11%
TOTAL	6,798	100%

Printing Employment



As noted on the cover page, printing industry employment growth in Indiana and Wisconsin has been spectacular, though some of it may reflect flight from Illinois. The "Other Manufacturing" growth category outperformed printing both in Illinois and Michigan, which seems to support the idea that the printing industry is moving further out into the region, away from Chicago.

States	Employees	Population (000)	Rank
Illinois	66,422	11,552	6
Ohio	39,365	10,752	7
Wisconsin	25,035	4,785	17
Indiana	19,826	5,504	14
Michigan	19,824	9,145	8
TOTAL	170,472	41,738	

THE GEOGRAPHY OF PRINT

Leading Printers in Major Markets

Company, Location

BUSINESS FORMS Total 4314.2

Moore Bus. Forms, Glenview, IL	1420.0
Standard Register, Dayton, OH	480.0
UARCO, Barrington, IL	402.0
Reynolds and Reynolds, Dayton, OH	275.0
NCR Corporation, Dayton, OH	245.0
Duplex Products, Sycamore, IL	240.0
Wallace Computer Services, Hillside, IL	205.0
SCM Allied Paper, Dayton, OH	187.0
Star Forms (Bowler), Moline, IL	142.0
CST Group, Wheeling, IL	87.0
Office Electronics, Itasca, IL	87.0
Shade In's Systems, Green Bay, WI	70.0
General Bus. Forms, Skokie, IL	48.0
Uforma/Shelby (Miami Sys.), Shelby, OH	33.0
Rotary Forms Press, Hillsboro, OH	28.5
Forms Corp. of America, Spring Grove, IL	27.0
Form Service, Schiller Park, IL	25.0
Pryor Corp., Chicago, IL	20.0
Highland Computer Forms, Hillsboro, OH	19.0
Bedinghaus Business Forms, Cincinnati, OH	18.0
Dataforms, New Berlin, WI	17.8
Atlas Tag & Label, Neenah, WI	17.5
Rotary Multifarms, Detroit, MI	15.4
Carleton Financial Computation, South Bend, IN	14.5

Miami Systems, Cincinnati, OH	13.5
Distributors Stock Forms, Itasca, IL	13.0
Master-Craft Corp., Kalamazoo, MI	13.0
Computer Stock Forms, Greenfield, OH	13.0
Champion Bus. Forms, Glendale Heights, IL	12.5
Neenah Printing, Neenah, WI	12.0
Menasha Corp., Neenah, WI	12.0
J. J. Collins' Sons, Melrose Park, IL	11.0
Stanart Ind. (Littin), Bedford Park, IL	11.0
Perry Printing, Flint, MI	10.0
Rotary Forms Press, Hillsboro, OH	10.0
Elgin Business Forms, Elgin, IL	9.5
Vista Business Forms, Oshtemo, MI	8.2
Kal Forms (Graphic Ind.), Kalamazoo, MI	8.0
Douglas Bros. (Standex), Kalamazoo, MI	7.0
Industrial Printing, Toledo, OH	6.5
Unit Sets (Rotary Forms), Wilmington, OH	5.5
A. J. Kennedy (Graphic Ind.), Elmhurst, IL	5.0
Standard Register/Stantest, Dayton, OH	4.3
Printing Service (Graphic Ind.), Madison Heights, MI	3.0
Huston-Patterson, Decatur, IL	2.5

COMMERCIAL/SPEC. Total 1745.8

Stone Container, Chicago, IL	485.0
Artfare, Appleton, WI	107.0
United States Playing Card, Cincinnati, OH	88.0
American Greetings Corp., Cleveland, OH	79.0
Sleepeck Printing, Bellwood, IL	56.0
Herff Jones, Indianapolis, IN	45.0
American Envelope, Chicago, IL	45.0
Rand McNally, Indianapolis, IN	40.0
C. W. Zumbiel, Cincinnati, OH	36.0
Serigraph, West Bend, WI	34.0
Monarch Marking (Pitney Bowes), Dayton, OH	34.0
Graphic Products, Chicago, IL	33.5
Meyercord, Carol Stream, IL	30.0
Kur Manufacturing, Detroit, MI	27.0
Shaw-Barton, Coshocton, OH	27.0
Doty Litho., Ft. Wayne, IN	26.0
Liturgical Publications, New Berlin, WI	23.0
The John Henry Co., Lansing, MI	21.0
Millprint, Milwaukee, WI	21.0
Beta-Four/Creative, Chicago, IL	20.0
Ft. Dearborn Litho., Chicago, IL	18.0

Company

SALES

Antioch Publishing, Yellow Springs, OH	16.0
Western Publishing, Racine, WI	15.0
Perry Printing/Gugler, Milwaukee, WI	15.0
Reynolds and Reynolds, Dayton, OH	15.0
KCS Industries (Banta), Milwaukee, WI	15.0
Ling Products (Banta), Neenah, WI	15.0
American Ptrs. & Litho, Chicago, IL	14.5
Carqueville Printing, Elk Grove Village, IL	12.0
The Hennegan Co., Cincinnati, OH	12.0
Arandell-Schmidt, Menomonee Falls, WI	10.8
Perfect Plasting Printing, St. Charles, IL	10.5
Fleming Packaging Corp., Peoria, IL	10.0
W. H. Brady Co., Milwaukee, WI	10.0
Brookshore Litho (Banta), Elk Grove Village, IL	9.0
Moebius Printing, Milwaukee, WI	9.0
Duplex Products, Sycamore, IL	9.0
Wintor Swan Assoc., Detroit, MI	9.0
Inland Lithograph, Elk Grove Village, IL	8.5
AGI Inc., Melrose Park, IL	8.5
Neenah Printing (Menasha), Neenah, WI	8.0
Wetzel Bros., Milwaukee, WI	8.0
E&D Web Offset, Cicero, IL	8.0
Huston-Patterson, Decatur, IL	8.0
Industrial Printing Co., Toledo, OH	7.5
KCL Corp., Shelbyville, IN	7.5
Central Printing, Dayton, OH	7.0
Schiele Graphics, Chicago, IL	7.0
Mercury Press, Forest Park, IL	7.0
Oliver Products, Grand Rapids, MI	7.0
The Segerdahl Corp., Wheeling, IL	6.5
Columbia Graphics, Chicago, IL	6.0
Amos Press Inc., Sidney, OH	6.0
Wm. Feather Printers, Oberlin, OH	6.0
Miami Systems, Cincinnati, OH	5.5
Gaylord Printing, Detroit, MI	5.5
Shepard Poorman, Indianapolis, IN	5.5
Great Lakes Litho, Cleveland, OH	5.0
S. Rosenthal & Co., Cincinnati, OH	5.0
Kalamazoo Label Co., Kalamazoo, MI	4.5
Printco, Greenville, MI	4.5
Warner Press, Anderson, IN	4.0
General Business Forms, Skokie, IL	4.0
J. J. Collins' Sons, Melrose Park, IL	3.0
Worzilla Publishing, Stevens Point, WI	3.0
Continental Dataforms, Elgin, IL	3.0
Nielsen Lithographing, Cincinnati, OH	2.5
Standard Pub. (Standex), Cincinnati, OH	2.5
Fenton Press, Canton, OH	2.5
Multi Ad Services, Peoria, IL	2.0
Etheridge Co. (Techtron), Grand Rapids, MI	2.0
Eagle Printing, Coldwater, MI	2.0
Ripon Community Printers, Ripon, WI	1.0

MAGAZINE Total 1330.8

R. R. Donnelley, Mattoon, IL	130.0
World Color Press, Salem, IL	120.0
World Color Press/Crossroads, Effingham, IL	115.0
World Color Press, Sparta, IL	95.0
QuadGraphics, Pewaukee, WI	95.0
National Graphics Corp., Columbus, OH	95.0
General Motors Photographic, Livonia, MI	50.0
Banta Company, Menasha, WI	40.0
Perry Printing, Baraboo, WI	40.0
World Color Press/Vern-Wood, Mt. Vernon, IL	40.0
Ringier America, Pontiac, IL	40.0
QuadGraphics, Sussex, WI	35.0
United Color Press, Monroe, OH	31.0
Ringier America, Brookfield, WI	30.0
R. R. Donnelley, Chicago, IL	30.0
Combined Comm., Mendota, IL	28.0
Graftek Press (Devon), Woodstock, IL	28.0
Penton Press, Berea, OH	23.0
S. Rosenthal & Co., Cincinnati, OH	23.0

Company

SALES

Wisconsin Color Press, Milwaukee, WI	22.0
Maxwell, Broadview, IL	20.0
Johnson Press, Pontiac, IL	16.0
Economy Printing Concern, Berne, IN	16.0
Simplicity Pattern, Niles, MI	16.0
Webcrafters, Madison, WI	15.0
Greenfield Ptg. & Pub., Greenfield, OH	14.0
Berlin Industries, Addison, IL	13.0
Graftek Press (Devon), Elkhorn, WI	12.1
Bradley Printing, Des Plaines, IL	12.0
Ringier America, New Berlin, WI	11.0
Regensteiner Printing, West Chicago, IL	10.0
Noll Printing, Huntington, IN	10.0
Johnson and Hardin, Cincinnati, OH	9.0
J. S. Paluch Co., Schiller Park, IL	9.0
St. Croix Press, New Richmond, WI	8.5
The Press of Ohio (Danner), Brimfield, OH	8.0
The Gray Printing Co., Fostoria, OH	8.0
Inco Graphics, Mason, MI	8.0
Cornelius Communications, Indianapolis, IN	7.5
Danner Press (Press/Ohio), Canton, OH	7.0
Benton Review Publishing, Fowler, IN	7.0
Carrollton Graphics, Carrollton, OH	7.0
National Graphics Corp., Columbus, OH	7.0
Desaulniers Printing, Milan, IL	6.0
Times Printing, Random Lake, WI	6.0
Speaker-Hines & Thomas, Lansing, MI	6.0
Perry Printing, Baraboo, WI	5.0
Neely Printing, Chicago, IL	5.0
Warner Press, Anderson, IN	4.0
Braun-Brunfield, Ann Arbor, MI	4.0
Badger Printing Corp., Appleton, WI	3.2
Edwards Brothers, Ann Arbor, MI	3.0
Strathmore Co., Geneva, IL	2.5
McNaughton & Gunn, Saline, MI	2.0
Artcraft Press, Waterloo, WI	1.5
Thomson-Shore, Dexter, MI	1.5

CATALOG Total 1015.0

R. R. Donnelley, Warsaw, IN	120.0
R. R. Donnelley, Chicago, IL	100.0
Alden Press, Elk Grove Village, IL	90.0
Rand McNally & Co., Indianapolis, IN	90.0
Webcrafters, Madison, WI	39.0
Malloy Lithographing, Ann Arbor, MI	25.0
Lake Book Mfg. Inc., Melrose Park, IL	24.0
Edwards Brothers, Ann Arbor, MI	23.0
Braun-Brunfield, Ann Arbor, MI	22.0
BookCrafters USA, Chelsea, MI	21.0
Danner Press, Canton, OH	20.0
McNaughton & Gunn, Saline, MI	14.0
Worzilla Publishing, Stevens Point, WI	14.0
Callaghan & Co., Mundelein, IL	11.5
Dickinson Press, Grand Rapids, MI	11.5
Standard Publishing Co., Cincinnati, OH	11.0
The C. J. Krehbiel Co., Cincinnati, OH	10.0
Ringier America, Brookfield, WI	9.0
Thomson-Shore, Dexter, MI	9.0
Tweddle Litho, St. Clair Shores, MI	8.0
Cushing-Malloy, Ann Arbor, MI	7.7
Johnson and Hardin Co., Cincinnati, OH	7.0
Lithocolor Press, Westchester, IL	7.0
The Murray Printing Co., Kendallville, IN	5.0
Phillips Bros. Printers, Springfield, IL	3.0
Economy Printing Concern, Berne, IN	2.7
Antioch Publishing, Yellow Springs, OH	2.5

DIRECT MAIL Total 870.0

UARCO, Barrington, IL	90.0
Wallace Computer Services, Hillside, IL	85.0
Moore Bus. Forms/Response, Libertyville, IL	85.0
Tech Web Inc., Wheeling, IL	48.5
Standard Register, Communicolor, Hebron, OH	45.0

Company

SALES

Pendell Printing, Midland, MI	6.0
BookCrafters USA, Chelsea, MI	5.6
Kukla Press, Elk Grove Village, IL	5.5
The John Henry Co., Lansing, MI	5.5
Standard Publishing (Standex), Cincinnati, OH	5.0
Ringier America, New Berlin, WI	5.0
Ripon Community Printers, Ripon, WI	5.0
S. Rosenthal & Co., Cincinnati, OH	4.5
Badger Printing Corp., Appleton, WI	4.3
United Color Press, Monroe, OH	4.0
Desaulniers Printing Co., Milan, IL	4.0
J. S. Paluch Co., Schiller Park, IL	3.5
The Gray Printing Co., Fostoria, OH	3.0
Carrollton Graphics, Carrollton, OH	3.0
Phillips Brothers, Springfield, IL	2.5
Thomson-Shore, Dexter, MI	2.5
Strathmore Co., Geneva, IL	2.5
St. Croix Press, New Richmond, WI	2.5
Cornelius Communications, Indianapolis, IN	2.5
Nielsen Lithographing, Cincinnati, OH	2.0
The C. J. Krehbiel Co., Cincinnati, OH	2.0
Etheridge Co. (Techtron), Grand Rapids, MI	2.0
Artcraft Press, Waterloo, WI	1.0

GREETING CARD Total 922.1

American Greetings Corp., Cleveland, OH	676.0
Gibson Greetings, Cincinnati, OH	20.0
Warner Press, Anderson, IN	12.0
The John Henry Co., Lansing, MI	8.5
Masterpiece Studios, Cicero, IL	8.5
Standard Register, Dayton, OH	6.0
Desaulniers Printing, Milan, IL	5.5
Hammer Graphics, Piqua, OH	5.0
Standard Publishing (Standex), Cincinnati, OH	5.0
Circuprint, Cincinnati, OH	4.5
Wicklander Printing Corp., Chicago, IL	3.5

BOOK Total 912.9

R. R. Donnelley, Crawfordville, IN	210.0
Western Publishing, Racine, WI	107.0
Banta Company, Menasha, WI	100.0
R. R. Donnelley & Sons, Willard, OH	90.0
Ringier America, New Berlin, WI	59.0
Rand McNally & Co., Indianapolis, IN	40.0
Webcrafters, Madison, WI	39.0
Malloy Lithographing, Ann Arbor, MI	25.0
Lake Book Mfg. Inc., Melrose Park, IL	24.0
Edwards Brothers, Ann Arbor, MI	23.0
Braun-Brunfield, Ann Arbor, MI	22.0
BookCrafters USA, Chelsea, MI	21.0
Danner Press, Canton, OH	20.0
McNaughton & Gunn, Saline, MI	14.0
Worzilla Publishing, Stevens Point, WI	14.0
Callaghan & Co., Mundelein, IL	11.5
Dickinson Press, Grand Rapids, MI	11.5
Standard Publishing Co., Cincinnati, OH	11.0
The C. J. Krehbiel Co., Cincinnati, OH	10.0
Ringier America, Brookfield, WI	9.0
Thomson-Shore, Dexter, MI	9.0
Tweddle Litho, St. Clair Shores, MI	8.0
Cushing-Malloy, Ann Arbor, MI	7.7
Johnson and Hardin Co., Cincinnati, OH	7.0
Lithocolor Press, Westchester, IL	7.0
The Murray Printing Co., Kendallville, IN	5.0
Phillips Bros. Printers, Springfield, IL	3.0
Economy Printing Concern, Berne, IN	2.7
Antioch Publishing, Yellow Springs, OH	2.5

DIRECT MAIL Total 870.0

UARCO, Barrington, IL	90.0
Wallace Computer Services, Hillside, IL	85.0
Moore Bus. Forms/Response, Libertyville, IL	85.0
Tech Web Inc., Wheeling, IL	48.5
Standard Register, Communicolor, Hebron, OH	45.0

Tables of leading printers given in order of overall market size. This will vary from region to region.

Company

SALES

Brookshore Litho (Banta), Elk Grove Village, IL	40.0
Alden Press, Elk Grove Village, IL	40.0
SCM Allied Paper Inc., Dayton, OH	38.0
Petty Printing Co., Effingham, IL	34.0
Lehigh Press/Cadillac, Broadview, IL	33.0
Solar Press, Naperville, IL	30.0
General Business Forms, Skokie, IL	22.0
The Perlmutter Printing Co., Cleveland, OH	20.0
Continental Web Press, Itasca, IL	17.0
Amos Press, Sidney, OH	15.5
Promotional Graphics (UARCO), Chicago	15.0
Reynolds and Reynolds, Dayton, OH	15.0
The Segerdahl Corp., Wheeling, IL	14.0
Johnson & Quin, Niles, OH	14.0
Arandell-Schmidt Corp., Menomonee Falls, WI	13.0
The Wessel Co., Elk Grove Village, IL	13.0
E&D Web Offset, Cicero, IL	12.5
Gaylord Printing, Detroit, IL	12.0
Service Web Offset Corp., Chicago, IL	11.0
FCL Graphics, Harwood Heights, IL	10.5
Kukla Press Inc., Elk Grove Village, IL	10.0
A. J. Kennedy (Graphic Ind.), Elmhurst, IL	10.0
American Inline, Seymour, IN	9.0
Printing Service (Graphic Ind.), Madison Heights, MI	9.0
Gunthorp-Warren Printing, Broadview, IL	8.5
Redson Rice Corp., Elk Grove Village, IL	8.0
Admark Printing, Brookville, OH	7.5
Pendell Printing, Midland, MI	6.0
Bedinghaus Business Forms, Cincinnati, OH	5.5
Desaulniers Printing, Milan, IL	5.5
Hammer Graphics, Piqua, OH	5.0
Standard Publishing (Standex), Cincinnati, OH	5.0
Circuprint, Cincinnati, OH	4.5
Wicklander Printing Corp., Chicago, IL	3.5

LABEL/WRAPPER Total 556.6

Madison Heights, MI	
Cunthorpe-Warren Printing, Broadview, IL	8.5
Redson Rice Corp., Elk Grove Village, IL	8.0
Admark Printing, Brookville, OH	7.5
Pendell Printing, Midland, MI	6.0
Bedinghaus Business Forms, Cincinnati, OH	5.5
Desaulniers Printing, Milan, IL	5.5
Hammer Graphics, Piqua, OH	5.0
Standard Publishing (Standex), Cincinnati, OH	5.0
Circuprint, Cincinnati, OH	4.5
Wicklander Printing Corp., Chicago, IL	3.5